NAI Report Release

Calculation Number: NAI-1149-015

Revision Number: 2

Title: Palisades Design Basis Control Rod Ejection AST Radiological Analysis

Description:

This calculation analyzes the radiological consequences of the Control Rod Ejection event presented in Section 14.16 of the Palisades FSAR using the AST dose calculation methodology described in USNRC Reg. Guide 1.183.

Revision 1 is issued to correct a numbering error with the calculation sections. No other items (including results) have been changed.

Revision 2 is issued to credit the reduction in control room unfiltered inleakage afforded by the installation of bubble-tight dampers.

J. T. Voskuil — 06-08-2006

Revision Author
Jeff Voskuil — Date

6-08-06

Revision Reviewer
Jim Harrell — Date

Jun 8, 2006

NAI Management
Tom George — Date

NAI Calculation Approval

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J. F. Voskuil 06-07-2006

Revision Author Date
Jeff Voskuil

Scope of Review:

Review included:

- A review of calculation methods was completed for consistency with plant-specific and generic regulatory requirements and guidance.
- Computer codes (RADTRAD-NAI) were checked for appropriate qualification.
- Calculation and code inputs and assumptions were verified against IAM document(s) and/or checked for reasonableness and conservatism.
- Computations were checked for correctness.
- References were verified as appropriate.
- Outputs from spreadsheets and utility programs were checked.
- Reported Results were verified against computer outputs.
- Results and conclusions were reviewed for reasonableness.
- Cases run were checked against procurement documents.

Design Verification – See Attachment 1 for Rev. 0 comments and responses. There are no Rev. 1 comments. There are no Rev. 2 comments.

Jim Harrell 6-8-06

Revision Reviewer Date
Jim Harrell

Check items in the following lists to verify that project documentation and engineering calculations are complete. Mark any items that are not applicable with N/A notation.

Project Documentation Checklist:

- ☐ Project QA Plan.
- ☐ Project Organization.
- ☐ Project Work Scope and Design Plan.
- ☐ Project Calculation and Document Index.
- N/A ☐ Project QA Requirements.
- ☐ Project Engineer Training and Qualification Forms.
- ☐ Project QA Training Certification Forms.
- ☐ Project Correspondence.

Engineering Calculations Checklist:

- ☑ Identification by subject, originator, reviewer, date and Project so that the calculation is retrievable.
- ☑ Table of contents.
- ☑ Statement of the objective of the analysis.
- ☑ Analysis inputs and their sources.
- ☑ Assumptions and how they were developed or determined.
- ☑ Hand calculations.
- ☑ Identification of computer calculations, including computer type, computer program name and version, code input and output.
- ☑ Conclusions.
- ☑ Review summary.
- ☑ Responses to review comments.
- ☑ References.
- ☑ Each page of the calculation shall be numbered and the first page shall indicate the total number of pages. The calculation pages may be numbered by sections with the first page of the section indicating the total number of pages in the section.
- ☑ The Calculation Approval Sheet shall be signed and dated by the originator.

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1.0 Introduction

The purpose of this calculation is to analyze the radiological consequences of the Control Rod Ejection (CRE) event presented in Section 14.16 of the Palisades FSAR (Reference 2). This analysis will use the AST dose calculation methodology described in Regulatory Guide 1.183 (Reference 1). Appendix H of Reg. Guide 1.183 provides the requirements for performing a dose analysis of a CRE event. Best-estimate inputs are used.

Appendix H of Reg. Guide 1.183 specifies that two cases must be analyzed for the CRE:

- 100% of the activity released from the damaged fuel is assumed to be instantaneously released to the containment atmosphere.
- 100% of the activity released from the damaged fuel is assumed to dissolve in the primary coolant and be available for release via steam generator tube leakage.

The activity released from the damaged fuel varies according to the type of fuel damage. Appendix H of Reg. Guide 1.183 states:

"Assumptions acceptable to the NRC staff regarding core inventory are in Regulatory Position 3 of this guide. For the rod ejection accident, the release from the breached fuel is based on the estimate of the number of fuel rods breached and the assumption that 10% of the core inventory of the noble gases and iodines is in the fuel gap. The release attributed to fuel melting is based on the fraction of the fuel that reaches or exceeds the initiation temperature for fuel melting and the assumption that 100% of the noble gases and 25% of the iodines contained in that fraction are available for release from containment. For the secondary system release pathway, 100% of the noble gases and 50% of the iodines in that fraction are released to the reactor coolant."

"Breached" fuel is interpreted to mean fuel that experiences DNB.

The previous Palisades CRE dose calculation (Reference 14) analyzed two different containment release scenarios. The two scenarios are the CHP (containment high pressure) case and CHR (containment high radiation) case. The CHR case results in no actuation of the containment sprays; therefore, the CHR case bounds the CHP case. Thus, the CHP case will not be analyzed. It should also be noted that Appendix H of Reg. Guide 1.183 does not require consideration of dose from SIRWT and ECCS leakage for the CRE dose evaluation.

2.0 Summary of Results

The results of the CRE secondary side release and containment release cases are provided below. The analysis assumes fuel failure of 14.7% DNB (Departure from Nucleate Boiling) and 0.5% FCM (Fuel Centerline Melt). A bounding value of 0.268 rem for the control room shine dose (cloud plus filter dose) is also included for the secondary side release (Table 1 of Reference 13) and a value of 0.296 rem is included for the containment release (cloud plus filter plus containment shine doses). The steam release for this event is the same as that used for the SGTR, in addition the secondary side initial activity is the same as the SGTR, also the control room unfiltered inleakage used for the SGTR was 100 cfm, which bounds the 10 cfm in this analysis; therefore the secondary side initial activity dose from the SGTR event (Reference 17) was used for the CRE secondary side release case.

Table 2-1 CRE Secondary Side Release Radiological Dose Results

Dose Contribution	TEDE Dose (rem)		
	EAB	**LPZ**	**CR**
DNB Fuel Noble Gas Dose	9.4158E-01	1.6591E-01	2.7379E-01
FCM Fuel Noble Gas Dose	3.2027E-01	5.6431E-02	9.3126E-02
DNB Fuel Iodine Dose	1.2780E+00	1.8440E-01	4.3813E-01
FCM Fuel Iodine Dose	1.5972E-01	2.3258E-02	5.5187E-02
Secondary Initial Activity	1.0675E-03	2.6467E-04	7.3129E-03
Control Room Shine Dose			0.268
Total	**2.70**	**0.43**	**1.14**
Acceptance Criteria	***6.3***	***6.3***	***5***
Control Room Unfiltered Inleakage = 10 cfm			

Table 2-2 CRE Containment Release Radiological Dose Results

Dose Contribution	TEDE Dose (rem)		
	EAB	**LPZ**	**CR**
DNB Fuel Dose	2.4328E+00	6.3208E-01	7.8420E-01
FCM Fuel Dose	1.8265E-01	4.6236E-02	5.4958E-02
Control Room Shine Dose			0.296
Total	**2.62**	**0.68**	**1.14**
Acceptance Criteria	***6.3***	***6.3***	***5***
Control Room Unfiltered Inleakage = 10 cfm			

3.0 Design Input

3.1 Source Term Input

Attachment 24 of Reference 7 presents the design basis AST source term for the Palisades LOCA. The *"Curies"* entry of this file provides the source term for the entire core with an average assembly burnup of 39,300 MWD/MTU and a core power level of 2703 MW_{th} (including uncertainty). The corresponding RADTRAD-NAI nuclide inventory file (***palisades_loca_db_ast.nif***) is listed in Attachment 2.

Section 3.4 of Reg. Guide 1.183 specifies the radionuclide groups that should be considered for radiological analyses. Reference 8 provides a listing of the individual nuclides and dose conversion factors used for the analyses presented in this calculation. The data provided in Reference 8 are consistent with Section 3.4 of Reg. Guide 1.183. The dose conversion factors provided in Reference 8 were obtained from Table 2.1 of Federal Guidance Report 11 and Table III.1 of Federal Guidance Report 12. The RADTRAD-NAI dose conversion factor file, ***nai-1101-001rev0.dcf***, is provided in Attachment 3.

3.2 Other Input

References 5, 15, and 16 list other input, approved by Palisades, used in the development of the Palisades CRE RADTRAD-NAI models.

Control room unfiltered inleakage is taken as 10 cfm based on the modification to install bubble tight dampers and subsequent post-modification testing, as indicated in the assumption section below.

4.0 Assumptions

- Operator action and makeup flow from the auxiliary feedwater system are assumed to maintain a constant mass on the secondary side of the steam generators.
- The steam generator masses are assumed to be equal to the minimum (HFP) value. This is a conservative assumption that maximizes the nuclide concentration available for release from the steam generators.
- For the secondary side CRE release case, all noble gases are assumed to leak directly to the environment.
- A PCS liquid volume equal to the primary side liquid volume minus the pressurizer liquid volume was used. A smaller PCS volume produces a higher PCS activity concentration.
- The thermal-hyraulic analysis that provides the steam release data for the plant cooldown includes an error in the decay heat determination. To account for this error, the steam release is increased by 20% over the first 30 minutes of the event.
- The control room unfiltered inleakage is assumed to be 10 cfm. Control room HVAC dampers D-1, D-2, D-8, D-9, D-15, and D-16 are scheduled to be replaced prior to the end of Palisades refueling outage 19. Post-modification tracer gas testing to confirm control room envelope inleakage is also scheduled.

5.0 Acceptance Criteria

Per Section 4.4 and Table 6 of Reg. Guide 1.183, the acceptable dose limits for the Exclusion Area Boundary (EAB), Low Population Zone (LPZ), and Control Room (CR) for the CRE are:

CRE Dose Limits

Area	Dose Criteria	
EAB	6.3 rem TEDE	(for the worst two hour period)
LPZ	6.3 rem TEDE	(for 30 days)
Control Room*	5 rem TEDE	(for 30 days)

*Control room dose limit is specified in 10CFR50.67

6.0 Computer Codes

The following computer code was used for performing the analyses presented in this calculation:

Computer Code	Version	Reference	Purpose
RADTRAD-NAI	1.1a(QA)	3	Radiological Dose Calculations

RADTRAD-NAI (Reference 3) is qualified and maintained under the Numerical Applications Inc. QA program (Reference 4). This QA program meets the requirements of 10CFR50 Appendix B with code error reporting per 10CFR21. RADTRAD-NAI is accessed via a controlled access web-based interface that provides a front-end for developing and submitting input models. The input developed via the interface is submitted to the RADTRAD-NAI solver that runs on an AMD-ATHLON based personal computer running LINUX.

7.0 Calculations

Two release Scenarios were evaluated for the CRE:

Scenario 1 - 100% of the activity released from the damaged fuel was assumed to be instantaneously released to the containment atmosphere. The dose for this release location consists of two cases:

- Dose from DNB fuel (Section 7.6)
- Dose from FCM fuel (Section 7.7)

Scenario 2 - 100% of the activity released from the damaged fuel was assumed to dissolve in the primary coolant and be available for release via steam generator tube leakage and MSSV/ADV steam release. This release path required modeling of four cases:

- Noble gas dose from DNB Fuel (Section 7.2)
- Noble gas dose from FCM Fuel (Section 7.3)
- Iodine dose from DNB fuel (Section 7.4)
- Iodine dose from FCM fuel (Section 7.5)
- The steam release for this event is the same as that used for the SGTR, in addition the secondary side initial activity is the same as the SGTR; therefore, the secondary side initial activity dose from the SGTR event (Reference 17) was used for the CRE secondary side release case.

The RADTRAD-NAI models for the containment release are similar to a LOCA without containment spray.

Section 7 of Appendix H and Section 5 of Appendix E to Reg. Guide 1.183 set the requirements for the transport, reduction, and release of radionuclides for the secondary side release path for the CRE.

The transport model specified by Reg. Guide 1.183 for a noble gas release from the secondary side is different than that specified for the non-noble gas nuclides; therefore, two separate RADTRAD-NAI models were required for determining the secondary side release dose.

7.1 Source Term Calculations

Section 1 of Appendix H to Reg. Guide 1.183 specifies different nuclide group release fractions for fuel that experiences DNB and for fuel that experiences fuel centerline melt (FCM). In addition, the percent of fuel damaged is different for DNB and FCM and the release fraction for FCM damage differs for the two release locations. Therefore, The the LOCA source term file will be adjusted to account for:

- fraction of fuel damaged
- the radial peaking factor of 2.04
- the release location (containment or secondary release)

These adjustments are accomplished via a multiplier applied through the “plant power” entry in the RADTRAD input file as will be discussed in subsequent sections of the calculation.

7.2 CRE Secondary Side Release Noble Gas Dose for DNB

Section 7.3 of Appendix H to Reg. Guide 1.183 specifies the method for handling the noble gas release for the secondary side:

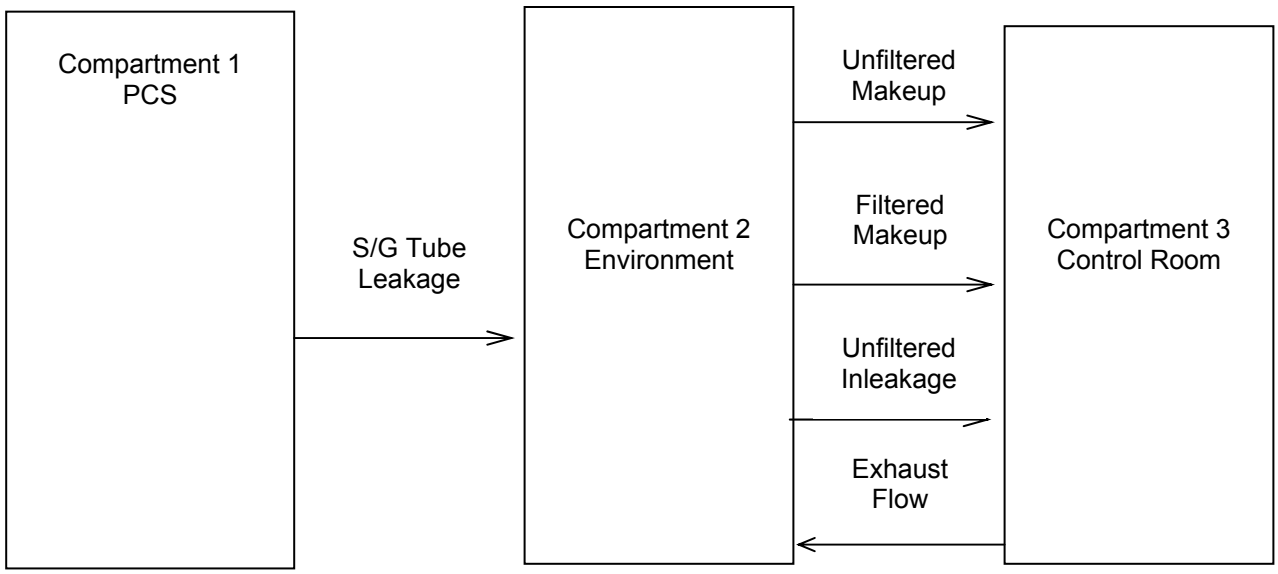
"All noble gas radionuclides released to the secondary system are assumed to be released to the environment without reduction or mitigation."

The RADTRAD-NAI model developed for the noble gas dose calculation for the noble gas released from the damaged fuel consists of three compartments and 5 pathways (see Figure 1):

Compartment Description	Compartment Number	RADTRAD-NAI Compartment Type
PCS	1	(3) Normal
Environment	2	(2) Environment
Control Room	3	(1) Control Room

Pathway Description	Compartment Connections	Pathway Number	RADTRAD-NAI Pathway Type
SG Tube Leakage	1 to 2	1	Filtered
Control Room Unfiltered Makeup	2 to 3	2	Filtered
Control Room Filtered Makeup	2 to 3	3	Filtered
Control Room Unfiltered Inleakage	2 to 3	4	Filtered
Control Room Exhaust	3 to 2	5	Filtered

Figure 1 Noble Gas RADTRAD-NAI Model



The subsections that follow describe the RADTRAD-NAI input for the noble gas model. The noble gas RADTRAD-NAI model was set up on a mass flow basis rather than the typical volumetric flow basis; therefore, the PCS volume was specified as lb_m and the steam generator tube leakage was specified as lb_m/min. The file name for this model is ***pal_CRE_DNB_sec_ng_db_ast.psf.*** The output for this case is provided in Attachment 4.

7.2.1 PCS Compartment

To conservatively maximize the PCS nuclide concentration from the damaged fuel, the minimum PCS volume minus the pressurizer volume was used. From Reference 15, this volume is 9400 ft^3. At system conditions of 2060 psia and 560°F (Reference 15), the PCS mass is:

(9400 ft^3) / (2.171017E-2 ft^3/lb_m) = 432,976.8 lb_m

The following input was specified for the PCS Compartment:

Volume	432,976.8 lb_m	
Source Fraction	1.0	100% of source term applied to PCS volume
Recirculation Filters	no	
Natural Deposition	no	

7.2.2 Environment Compartment

The only required input for the environment compartment is volume. This value is a “dummy” value; however, an input is required for this field. An arbitrary value of 2.0E20 ft^3 was specified.

7.2.3 Control Room Compartment

The control room volume was set to 35,923 ft^3 (Reference 15). The control room HVAC system is assumed to be operating in normal mode at the beginning of the event. The operators are assumed to place the control room into emergency filtration mode at 20 minutes (Reference 5).

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	0.0	99	99	99
0.3333	1413.6	99	99	99
720.0	1413.6	99	99	99

7.2.4 Steam Generator Leakage to Environment

This pathway, which models the total steam generator tube leakage, connects the PCS (Compartment 1) with the Environment Compartment (Compartment 2). The limit for steam generator tube leakage is 432 gallons per day (0.3 gpm) to any single SG (Reference 16). Item 7.2 of Appendix H to Reg. Guide 1.183 states:

"The density used in converting volumetric leak rates (e.g., gpm) to mass leak rates (e.g., lbm/hr) should be consistent with the basis of surveillance tests used to show compliance with leak rate technical specifications. These tests typically are based on cooled liquid. The facility's instrumentation used to determine leakage typically is located on lines containing cool liquids. In most cases, the density should be assumed to be 1.0 gm/cc (62.4 lbm/ft3)."

The total leak mass flow rate is:

SG Tube Leak rate = (0.3 gpm/SG)(2 SG)(0.13368 ft^3/gal)(62.4 lb_m/ft^3) = 5.005 lb_m/min

The tube leakage ceases at 8 hours (time that secondary side steam release ends):

Time (hours)	Flow Rate (lb/min)	Filter Efficiency Aerosol	Elemental	Organic
0.0	5.005	0	0	0
8.0	0.0	0	0	0
720.0	0.0	0	0	0

7.2.5 Control Room Unfiltered Makeup

The unfiltered makeup flow covers three time periods. A loss of offsite power is assumed to occur coincident with the CRE; therefore, from 0 to 1.5 minutes, the unfiltered flow rate consists of the base infiltration rate of 384.2 cfm (Reference 15). The control room normal makeup flow rate of 660 cfm is restored at 1.5 minutes. At 20 minutes, the control room enters recirculation mode.

Unfiltered Makeup Flow

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	384.2	0	0	0
0.025	660.0	0	0	0
0.3333	0.0	0	0	0
720.0	0.0	0	0	0

7.2.6 Control Room Filtered Makeup

The control room filtered makeup flow of 1413.6 cfm starts at 20 minutes (time of control room isolation).

Filtered Makeup Flow

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	0.0	99	99	99
0.3333	1413.6	99	99	99
720.0	1413.6	99	99	99

7.2.7 Control Room Unfiltered Inleakage

The unfiltered inleakage was set to 10 cfm.

Unfiltered Inleakage

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	0.0	0	0	0
0.3333	10.0	0	0	0
720.0	10.0	0	0	0

7.2.8 Control Room Exhaust

The control room exhaust is equal to the sum of the control room intake and inleakage flows.

Exhaust Flow

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	384.2	0	0	0
0.025	660.0	0	0	0
0.3333	1423.6	0	0	0
720.0	1423.6	0	0	0

7.2.9 Plant Power and Release Information

The "plant power" entry is used to account for the fraction of fuel experiencing DNB and to account for the radial peaking factor:

Power = 2703 x 0.147 x 2.04 = 810.576

The start of the release was specified as 0.0 hours. "Dummy" values were specified for the iodine fractions (no iodine release for the Noble Gas case).

Start of first release time (hours)	0.0
Calculate decay	yes
Calculate daughters	yes
Iodine Fraction – aerosol	0.0
Iodine Fraction – elemental	0.97
Iodine Fraction – organic	0.03

7.2.10 Dose Location Information

Three dose locations were specified; the Exclusion Boundary (EAB), the Low Population Zone (LPZ), and the Control Room (CR). The X/Qs for the EAB and LPZ are from Table 5 of Reference 10. The breathing rates are from Section 4.1.3 of Reg. Guide 1.183:

Exclusion Boundary Data:

EAB X/Q

X/Q Table 1

Time (hours)	X/Q (sec/m^3)
0.0	5.39E-4
720.0	5.39E-4

EAB & LPZ Breathing Rate

Time (hours)	Breathing Rate (m^3/sec)
0.0	3.5E-4
8.0	1.8E-4
24.0	2.3E-4
720.0	2.3E-4

Low Population Zone Data:

LPZ X/Q

X/Q Table 2

Time (hours)	X/Q (sec/m^3)
0.0	6.66E-5
2.0	3.03E-5
8.0	2.04E-5
24.0	8.67E-6
96.0	2.54E-6
720.0	2.54E-6

Control Room Data:

The breathing rates and occupancy factor for the control room are from Section 4.2.6 of Reg. Guide 1.183. For the first 1100 seconds (0.305556 hours) the release is via the most limiting SRV (see Section 7.4.6). After 0.305556 hours, the release is via the most limiting ADV. The X/Qs are from Table 4 of Reference 10.

Control Room X/Q for Unfiltered Makeup Flow and Inleakage
X/Q Table 3

Time (hours)	X/Q (sec/m^3)
0.0	2.11E-2
0.305556	1.65E-2
2.0	1.34E-2
8.0	5.40E-3
24.0	4.03E-3
96.0	2.98E-3
720.0	2.98E-3

Control Room X/Q for Filtered Makeup Flow
X/Q Table 4

Time (hours)	X/Q (sec/m^3)
0.0	7.96E-4
0.305556	7.36E-4
2.0	6.42E-4
8.0	2.43E-4
24.0	1.75E-4
96.0	1.28E-4
720.0	1.28E-4

Control Room Breathing Rate

Time (hours)	Breathing Rate (m^3/sec)
0.0	3.5E-4
720.0	3.5E-4

Control Room Occupancy Factor

Time (hours)	Factor
0.0	1.0
24.0	0.6
96.0	0.4
720.0	0.4

Dose Location Pathway Combinations

Control Room Intake Path	Release Path	X/Q Table
2	1	3
3	1	4
4	1	3

7.2.11 Source Term

The LOCA source term is used for the CRE DNB fuel release. The corresponding nuclide inventory file is ***palisades_loca _db_ast.nif***. The LOCA source term data are modified via the RADTRAD-NAI power input value and via the release fraction timing file to produce the appropriate source term for the CRE DNB secondary release source term.

7.2.12 CRE DNB Noble Gas Release Fraction Timing File

According to Footnote 11 to Table 3 and per Section 1.0 of Appendix H to Reg. Guide 1.183, the noble gas release fraction for breached fuel (DNB) is 0.10. The release fraction timing file, ***pal_cre_dnb_sec_ng.rft***, is listed below:

Table 7-1 DNB Noble Gas Release Fraction Timing File

```
Release Fraction and Timing Name:
Palisades CRE DNB Secondary NG Fuel Release
Duration (h):  Design Basis Accident
 0.1000E-03  0.0000E+00  0.0000E+00  0.0000E+00
Noble Gases:
 0.1000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Iodine:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cesium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Tellurium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Strontium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Barium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Ruthenium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cerium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Lanthanum:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Non-Radioactive Aerosols (kg):
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
End of Release File
```

7.3 CRE Secondary Side Release Noble Gas Dose for FCM

The RADTRAD-NAI model used for this case is similar to that described in Section 7.2. The only items that were changed were the release fraction timing file along with corresponding "plant power".

The "plant power" entry was used to account for the fraction of fuel experiencing FCM and to account for the radial peaking factor:

Plant Power = 2703 x 0.005 x 2.04 = 27.5706

According Section 1.0 of Appendix H to Reg. Guide 1.183 the secondary side noble gas release fraction for FCM is 1.0. The release fraction timing file, ***pal_cre_fcm_sec_ng.rft***, is listed below:

Table 7-2 CRE Secondary FCM Noble Gas Release Fraction Timing File

```
Release Fraction and Timing Name:
Palisades CRE FCM Secondary NG Fuel Release
Duration (h):  Design Basis Accident
 0.1000E-03  0.0000E+00  0.0000E+00  0.0000E+00
Noble Gases:
 0.1000E+01  0.0000E+00  0.0000E+00  0.0000E+00
Iodine:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cesium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Tellurium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Strontium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Barium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Ruthenium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cerium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Lanthanum:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Non-Radioactive Aerosols (kg):
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
End of Release File
```

The file name for this model is ***pal_CRE_FCM_sec_ng_db_ast.psf.*** The output for this case is provided in Attachment 5.

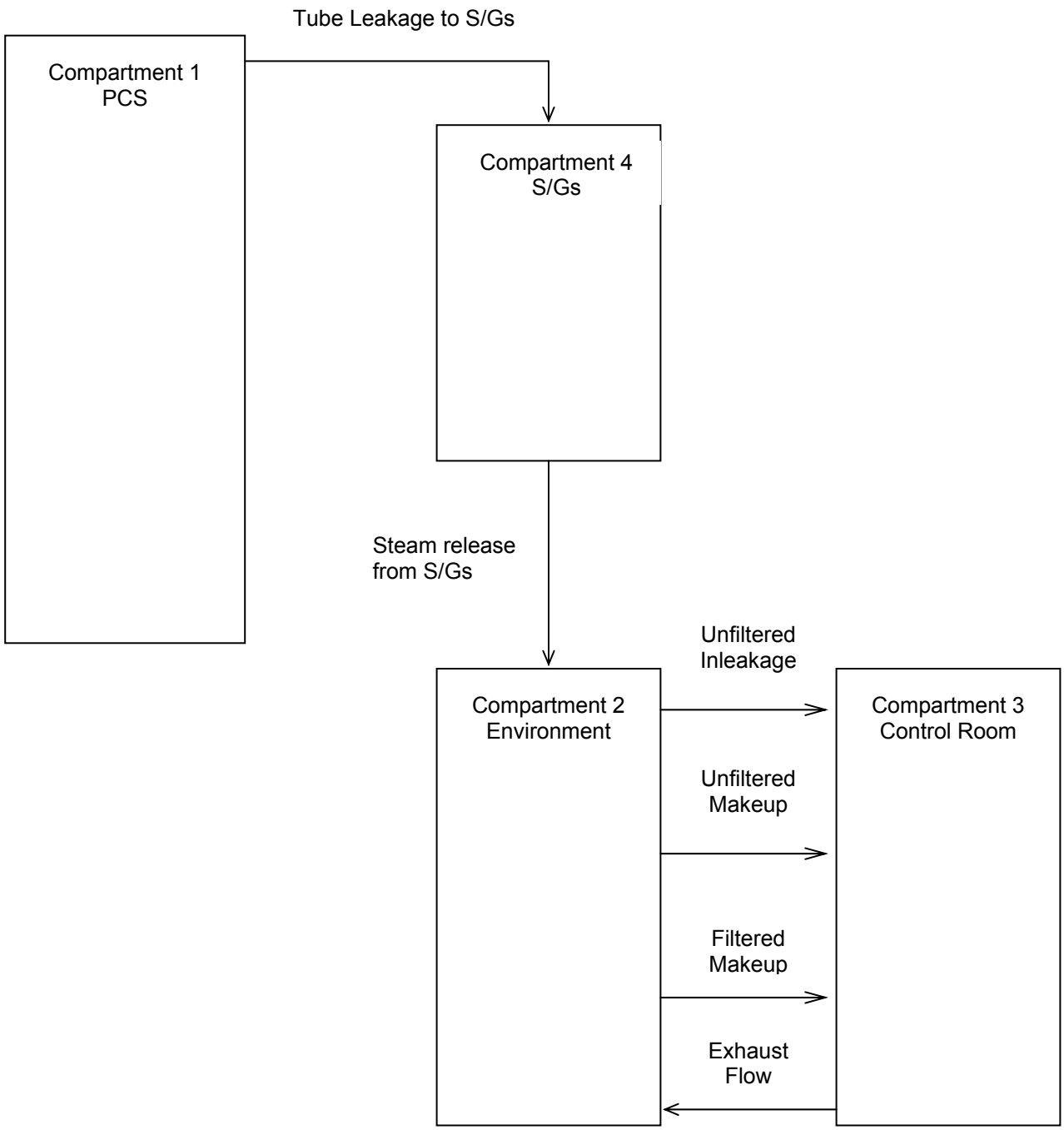
7.4 CRE Secondary Side Release Iodine Dose for DNB

The CRE secondary side leakage RADTRAD-NAI model was used to determine the doses due to iodine released from the damaged (DNB) fuel. This model consists of four compartments and six pathways (see Figure 2):

Compartment Description	Compartment Number	RADTRAD-NAI Compartment Type
PCS	1	(3) Normal
Environment	2	(2) Environment
Control Room	3	(1) Control Room
Steam Generators	4	(3) Normal

Pathway Description	Compartment Connections	Pathway Number	RADTRAD-NAI Pathway Type
SG Tube Leakage	1 to 4	1	Filtered
Control Room Unfiltered Makeup	2 to 3	2	Filtered
Control Room Filtered Makeup	2 to 3	3	Filtered
Control Room Unfiltered Inleakage	2 to 3	4	Filtered
Control Room Exhaust	3 to 2	5	Filtered
Steam Release from ADV's	4 to 2	6	Filtered

Figure 2 Secondary Side Leakage RADTRAD-NAI Model



The subsections that follow describe the input for the secondary side leakage model. The model was set up on a mass flow basis rather than the typical volumetric flow basis; therefore, the PCS volume was specified as lb_m and the steam generator tube leakage and steam release rates were specified as lb_m/min. The file name for this model is ***pal_CRE_DNB_sec_iodine_db_ast.psf.*** The output for this case is provided in Attachment 6.

7.4.1 PCS Compartment

The input for this compartment is the same as that used for the noble gas model (see Section 7.2.1).

7.4.2 Environment and Control Room Compartments

The input for these compartments is the same as that used for the noble gas model (see Sections 7.2.2 and 7.2.3).

7.4.3 Steam Generators Compartment

The minimum steam generator mass (141,065 lb_m per Reference 16) was used in order to maximize the nuclide concentration available for the steam release:

Volume	282,130 lb_m	Calculation performed on a lb_m basis; therefore, minimum S/G water mass is input (2 x 141,065 lb_m). Minimum S/G mass corresponding to HFP was used to maximize concentration.
Source Fraction	0	Dose due to PCS leakage only.
Recirculation Filters	no	
Natural Deposition	no	

7.4.4 Control Room Pathways

The input for the control room pathways is the same as that used for the noble gas model (see Sections 7.2.5, 7.2.6, 7.2.7, and 7.2.8).

7.4.5 Leakage to Steam Generators – Pathway 1

The input for this pathway is similar to that used for the noble gas model (see Section 7.2.4). The only difference is that the pathway runs from the PCS compartment to the Steam Generator compartment. The steam generator tubes remain covered throughout the event (Reference 5); therefore, per Section 5.5.1 of Appendix E to Reg. Guide 1.183, the tube leakage was assumed to mix with the bulk water without flashing.

7.4.6 Steam Release From Steam Generators – Pathway 6

This pathway connects the Steam Generators (Compartment 4) with the Environment (Compartment 2). Makeup flow from the auxiliary feedwater system is assumed to maintain a constant mass on the secondary side of the intact steam generators. Section 5.5.4 of Appendix E to Reg. Guide 1.183 states:

"The radioactivity in the bulk water is assumed to become vapor at a rate that is the function of the steaming rate and the partition coefficient. A partition coefficient for iodine of 100 may be assumed. The retention of particulate radionuclides in the steam generators is limited by the moisture carryover from the steam generators."

The carryover fraction for Palisades is less than 1%; therefore, a partition coefficient of 100 was used for both the particulate and iodine released via the SRVs/ADVs. The partition coefficient was modeled by adjusting the steam mass release rates from the steam generators by a factor of 0.01.

Per References 5 and 16, the secondary side steam release consists of an initial release via the SRVs followed by a controlled release from the ADVs (for plant cooldown). The data provided in References 5 and 16 include approximately a 700 second delay before a reactor trip. However, for the CRE analysis, a LOOP is assumed coincident with the beginning of the event. Therefore, the SRV/ADV release data from Reference 5 were adjusted to coincide with the beginning of the event. In addition, in order to account for an error in the decay heat calculation in the thermal-hydraulic analysis, the steam release during the first 30 minutes is increased by 20%.

The SRV release for the two S/Gs is 44,654 + 44,645 = 89,299 lb_m over the first 1100 seconds (700 seconds to 1800 seconds in References 5 and 16):

SRV Release Rate = (89,299)(1.2)(60)(0.01)/(1100) = 58.45 lb_m/min

An 8 hour cooldown period is specified in Reference 5, thus, the ADV release starts at 1100 seconds (18.3333 minutes or 0.305556 hours) and is assumed to continue to 8 hours (480 minutes).

The total ADV release is:

313,736 lb_m + 719,448 lb_m = 1,033,184 lb_m

The release rate from 1100 seconds (18.3333 minutes or 0.305555 hours) to 8 hours (480 minutes) is:

(1,033,184)(0.01) / (480 -18.3333) = 22.38 lb_m/min

From 18.3333 to 30 minutes the release is increased by 20% to account for the decay heat error:

(22.38)(1.2) = 26.86

Time (hours)	Flow Rate (lb_m/min)	Filter Efficiency Aerosol	Elemental	Organic
0.0	58.45	0	0	0
0.305556	26.86	0	0	0
0.5	22.38	0	0	0
8.0	0.0	0	0	0
720.0	0.0	0	0	0

7.4.7 Plant Power and Release Information

The "plant power" entry is used to account for the fraction of fuel experiencing DNB and to account for the radial peaking factor:

Power = 2703 x 0.147 x 2.04 = 810.576

The composition of the iodine released from the steam generators during a CRE event is specified in Section 5 of Appendix H to Reg. Guide 1.183 (97% elemental and 0.03% organic).

Start of first release time (hours)	0.0
Calculate decay	yes
Calculate daughters	yes
Iodine Fraction – aerosol	0.0
Iodine Fraction – elemental	0.97
Iodine Fraction – organic	0.03

7.4.8 Dose Location Information

The dose location input is similar to that used for the noble gas model (see Section 7.2.10). However, it was necessary to revise the pathway numbers to reflect the addition of the path for the SG steam release:

Intake Pathway Combinations

Control Room Intake Path	Release Path	X/Q Table
2	6	3
3	6	4
4	6	3

7.4.9 Source Term

The source term for the DNB secondary leakage model is discussed in Section 7.2.11. The corresponding nuclide inventory file is ***palisades_loca_db_ast.nif***.

7.4.10 CRE DNB Secondary Leakage Iodine Release Fraction Timing File

According Section 1.0 of Appendix H to Reg. Guide 1.183 the secondary side iodine release fraction for DNB is 0.1. Per Table 3 of Reg. Guide 1.183, the release fraction for alkali metals (cesium) is 0.12. The release fraction timing file, ***pal_cre_dnb_sec_iodine_ast.rft***, is listed below:

Table 7-3 CRE DNB Secondary Leakage Iodine Release Fraction Timing File

```
Release Fraction and Timing Name:
Palisades CRE DNB Secondary Iodine&Cesium Fuel Release AST
Duration (h):  Design Basis Accident
 0.1000E-03  0.0000E+00  0.0000E+00  0.0000E+00
Noble Gases:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Iodine:
 0.1000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cesium:
 0.1200E+00  0.0000E+00  0.0000E+00  0.0000E+00
Tellurium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Strontium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Barium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Ruthenium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cerium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Lanthanum:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Non-Radioactive Aerosols (kg):
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
End of Release File
```

7.5 CRE Secondary Side Release Iodine Dose for FCM

This model is similar to the one described in the previous section:

- As discussed in Section 7.3 the plant power to model a 0.5% FCM fuel failure is 27.5706
- The release fraction timing file was set up to release an iodine fraction of 0.5 per Section 1.0 of Appendix H to Reg. Guide 1.183. The cesium release fraction was set to 0.12. The corresponding release fraction timing file, ***pal_cre_fcm_sec_iodine_ast.rft,*** is listed below:

Table 7-4 CRE FCM Secondary Leakage Iodine Release Fraction Timing File

```
Release Fraction and Timing Name:
Palisades CRE FCM Secondary Iodine&Cesium Fuel Release AST
Duration (h):  Design Basis Accident
 0.1000E-03  0.0000E+00  0.0000E+00  0.0000E+00
Noble Gases:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Iodine:
 0.5000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cesium:
 0.1200E+00  0.0000E+00  0.0000E+00  0.0000E+00
Tellurium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Strontium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Barium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Ruthenium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cerium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Lanthanum:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Non-Radioactive Aerosols (kg):
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
End of Release File
```

The file name for this model is ***pal_CRE_FCM_sec_iodine_db_ast.psf.*** The output for this case is provided Attachment 7.

7.6 CRE DNB Containment Leakage Model

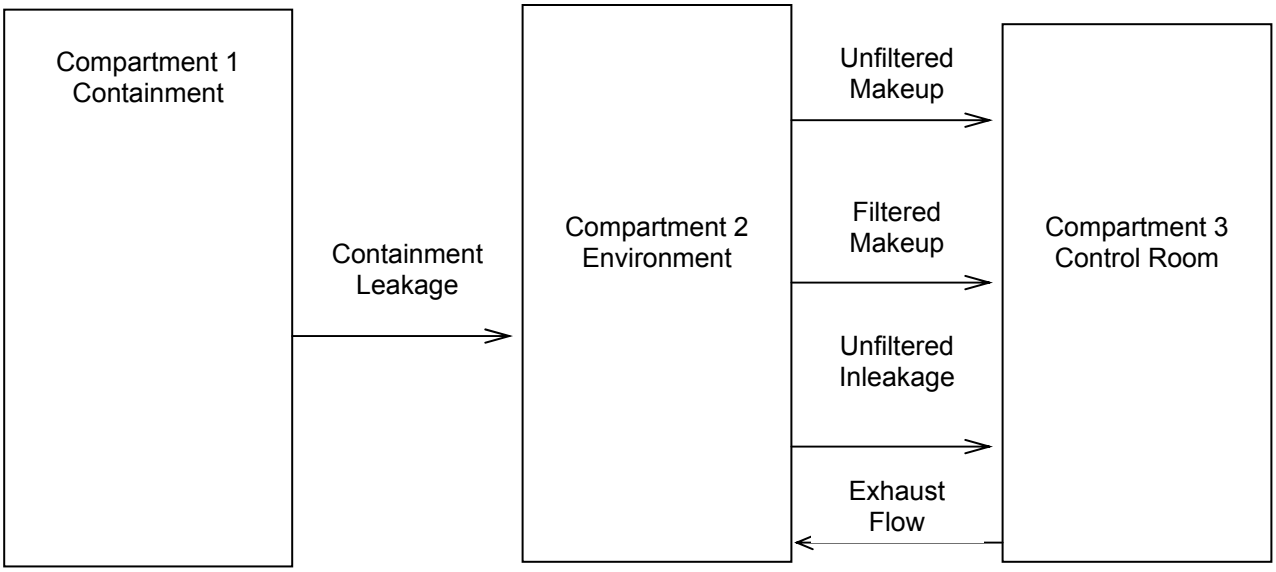
Section 6 of Appendix H to Reg. Guide 1.183 lists the assumptions for the CRE containment release evaluation. Credit for containment nuclide removal processes is allowed (sprays, filters, natural deposition, etc.). As discussed in Section 1.0, the CHR (containment isolation due to high radiation) case results in no containment spray. This case will bound the CHP case (containment isolation due to high pressure) which has containment sprays. The file name for this model is ***pal_CRE_DNB_cont_db_ast.psf.*** The output for this case is provided in Attachment 8.

The RADTRAD-NAI model developed for the CRE DNB containment leakage calculation consists of three compartments and 5 pathways (see Figure 3):

Compartment Description	Compartment Number	RADTRAD-NAI Compartment Type
Containment	1	(3) Normal
Environment	2	(2) Environment
Control Room	3	(1) Control Room

Pathway Description	Compartment Connections	Pathway Number	RADTRAD-NAI Pathway Type
Containment Leakage	1 to 2	1	Convective
Control Room Unfiltered Makeup	2 to 3	2	Filtered
Control Room Filtered Makeup	2 to 3	3	Filtered
Control Room Unfiltered Inleakage	2 to 3	4	Filtered
Control Room Exhaust	3 to 2	5	Filtered

Figure 3 Containment Leakage RADTRAD-NAI Model



7.6.1 Containment Compartment

The following input was specified for the Containment Compartment:

Volume	1.64E6 ft^3	
Source Fraction	1.0	100% of source term applied to the containment
Sprays	no	
Recirculation Filters	no	
Natural Deposition	yes	aerosol = 0.1 hr^{-1} (Reference 12) elemental iodine = 1.3 hr^{-1} (Reference 15)

7.6.2 Environment and Control Room Compartments

With one exception, the input for these compartments is the same as that used for the noble gas model (see Sections 7.2.2 and 7.2.3). The control room recirculation flow starts at 1.5 minutes (0.025 hours).

7.6.3 Containment Leakage

The containment leakage is 0.10% of volume per day, decreasing to 0.05% of volume per day at 24 hours.

Time (hours)	Flow Rate (%/day)	Filter Efficiency Aerosol	Elemental	Organic
0.0	0.10	0	0	0
24.0	0.05	0	0	0
720.0	0.05	0	0	0

7.6.4 Control Room Unfiltered Makeup

The unfiltered makeup flow covers two time periods. A loss of offsite power is assumed to occur coincident with the CRE; therefore, from 0 to 1.5 minutes, the unfiltered flow rate consists of the base infiltration rate of 384.2 cfm. (It should be noted that in the event of no loss of offsite power, the flow rate would be 660 cfm. However, in this event, there would be no time delay required for diesel startup and sequencing time, thus the control room would be isolated much sooner.) After control room isolation at 1.5 minutes, the flow is 0 cfm.

Unfiltered Makeup Flow

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	384.2	0	0	0
0.025	0.0	0	0	0
720.0	0.0	0	0	0

7.6.5 Control Room Filtered Makeup

The control room filtered makeup flow of 1413.6 cfm starts at 1.5 minutes (time of control room isolation).

Filtered Makeup Flow

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	0.0	99	99	99
0.025	1413.6	99	99	99
720.0	1413.6	99	99	99

7.6.6 Control Room Unfiltered Inleakage

The unfiltered inleakage was set to 10 cfm.

Unfiltered Inleakage

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	0.0	0	0	0
0.025	10.0	0	0	0
720.0	10.0	0	0	0

7.6.7 Control Room Exhaust

The control room exhaust is equal to the sum of the control room intake and inleakage flows.

Exhaust Flow

Time (hours)	Flow Rate (cfm)	Filter Efficiency Aerosol	Elemental	Organic
0.0	384.2	0	0	0
0.025	1423.6	0	0	0
720.0	1423.6	0	0	0

7.6.8 Plant Power and Release Information

The "plant power" entry is used to account for the fraction of fuel experiencing DNB and to account for the radial peaking factor:

Power = 2703 x 0.147 x 2.04 = 810.576

Section 4 of Appendix H to Reg. Guide 1.183 specifies the fractions for the three forms of iodine released from the PCS to containment. The start of the release was specified as 0.0 hours.

Start of first release time (hours)	0.0
Calculate decay	yes
Calculate daughters	yes
Iodine Fraction – aerosol	0.95
Iodine Fraction – elemental	0.0485
Iodine Fraction – organic	0.0015

7.6.9 Dose Location Information

Three dose locations were specified; the Exclusion Boundary (EAB), the Low Population Zone (LPZ), and the Control Room (CR). The X/Qs for the EAB and LPZ are the same as Section 7.2.10. The X/Qs for the containment release are from Table 4 of Reference 10.

Control Room X/Q for Unfiltered Flow
Table 3

Time (hours)	X/Q (sec/m^3)
0.0	1.43E-2
2.0	1.11E-2
8.0	4.13E-3
24.0	3.23E-3
96.0	2.49E-3
720.0	2.49E-3

Control Room X/Q for Filtered Makeup Flow
Table 4

Time (hours)	X/Q (sec/m^3)
0.0	7.26E-4
2.0	6.18E-4
8.0	2.47E-4
24.0	1.77E-4
96.0	1.30E-4
720.0	1.30E-4

Dose Location Pathway Combinations

Control Room Intake Path	Release Path	X/Q Table
2	1	3
3	1	4
4	1	3

7.6.10 Source Term

The LOCA source term is used for the CRE DNB fuel release. The corresponding nuclide inventory file is ***palisades_loca_db_ast.nif***. The LOCA source term data are modified via the RADTRAD-NAI power input value and via the release fraction timing file to produce the appropriate source term for the CRE DNB containment release source term.

7.6.11 DNB Containment Leakage Release Fraction Timing File

According to Footnote 11 to Table 3 and per Section 1.0 of Appendix H to Reg. Guide 1.183 the release fractions for breached fuel (DNB) are 0.10 for noble gas, 0.10 for iodine, and 0.12 for alkali metals (cesium). The release fraction timing file, ***pal_cre_dnb_cont_ast.rft***, is listed below:

Table 7-5 CRE Containment DNB Release Fraction Timing File

```
Release Fraction and Timing Name:
Palisades CRE DNB Containment Fuel Release AST
Duration (h):  Design Basis Accident
 0.1000E-03  0.0000E+00  0.0000E+00  0.0000E+00
Noble Gases:
 0.1000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Iodine:
 0.1000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cesium:
 0.1200E+00  0.0000E+00  0.0000E+00  0.0000E+00
Tellurium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Strontium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Barium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Ruthenium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cerium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Lanthanum:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Non-Radioactive Aerosols (kg):
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
End of Release File
```

7.7 CRE FCM Containment Leakage Model

The RADTRAD-NAI model used for this case is similar to that described in Section 7.6. The only items that were changed were the release fraction timing file along with corresponding "plant power".

The "plant power" entry was used to account for the fraction of fuel experiencing FCM and to account for the radial peaking factor:

Plant Power = 2703 x 0.005 x 2.04 = 27.5706

According Section 1.0 of Appendix H to Reg. Guide 1.183 the containment release fractions for FCM are 1.0 for noble gas and 0.25 for iodine. In addition, per Table 3 of Reg. Guide 1.183, the release fraction for alkali metals (cesium) is 0.12. The release fraction timing file, ***pal_cre_fcm_cont_ast.rft***, is listed below:

Table 7-6 CRE Containment FCM Release Fraction Timing File

```
Release Fraction and Timing Name:
Palisades CRE FCM Containment Fuel Release AST
Duration (h):  Design Basis Accident
 0.1000E-03  0.0000E+00  0.0000E+00  0.0000E+00
Noble Gases:
 0.1000E+01  0.0000E+00  0.0000E+00  0.0000E+00
Iodine:
 0.2500E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cesium:
 0.1200E+00  0.0000E+00  0.0000E+00  0.0000E+00
Tellurium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Strontium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Barium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Ruthenium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cerium:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Lanthanum:
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Non-Radioactive Aerosols (kg):
 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
End of Release File
```

The file name for this model is ***pal_CRE_FCM_cont_db_ast.psf.*** The output for this case is provided in Attachment 9.

8.0 References

1. USNRC, Regulatory Guide 1.183, “Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Plants”, July 2000.
2. Palisades Nuclear Plant FSAR, Revision 24.
3. Numerical Applications Inc., NAI-9912-04, Revision 4, “RADTRAD-NAI Version 1.1a(QA) Documentation”, October 2004.
4. Numerical Applications Inc., “Dose Methodology Quality Assurance Procedures”, Revision 1, June 4, 2001.
5. NAI-E03-211 Project Memo 2004-04, “CRE Inputs”, June 23 2004.
6. Palisades Plant Technical Specifications through Amendment 213.
7. NAI Calculation Number NAI-1149-001 Rev. 1, ” Source Terms for Palisades Dose Calculations”.
8. NAI Calculation Number NAI-1101-001 Rev. 1, “Generation of .nif and .inp Files for RADTRAD-NAI”.
9. NAI Calculation Number NAI-1149-004 Rev. 0, “Palisades Best Estimate AST MHA/LOCA Radiological Analysis”.
10. NAI Calculation Number NAI-1149-002 Rev. 0, ”Determination of Atmospheric Dispersion Factors for Palisades”.
11. USNRC, “Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 201 to Facility Operating License No. DPR-40, Omaha Public Power District, Fort Calhoun Station, Unit No. 1, Docket No. 50-285”.
12. IDCOR Program Technical Report 11.3, “Fission Product Transport in Degraded Core Accidents”, December 1983.
13. NAI Calculation Number NAI-1149-024 Rev. 1, “Determination of Direct Shine Doses for a Design Basis LOCA for Palisades”.
14. Palisades Calculation EA-TAM-96-02, Revision 3.
15. NAI-E03-211 Project Memo 2004-03, “MHA/LOCA Inputs”, June 11 2004.
16. NAI-E03-211 Project Memo 2004-06, “MSLB and SGTR Inputs”, July 6 2004.
17. NAI Calculation Number NAI-1149-019 Rev. 0, “Palisades Design Basis Steam Generator Tube Rupture AST Radiological Analysis”.

9.0 CRE RADTRAD-NAI Analysis Files

RADTRAD-NAI CRECase Files

File Name	Attachment #	Case
pal_CRE_DNB_sec_ng_db_ast.out	Attachment 4	CRE DNB fuel dose due to secondary side release of noble gas
pal_CRE_FCM_sec_ng_db_ast.out	Attachment 5	CRE FCM fuel dose due to secondary side release of noble gas
pal_CRE_DNB_sec_iodine_db_ast.out	Attachment 6	CRE DNB fuel dose due to secondary side release of non-noble gas nuclides
pal_CRE_FCM_sec_iodine_db_ast.out	Attachment 7	CRE FCM fuel dose due to secondary side release of non-noble gas nuclides
pal_CRE_DNB_cont_db_ast.out	Attachment 8	CRE DNB fuel dose for containment release
pal_CRE_FCM_cont_db_ast.out	Attachment 9	CRE FCM fuel dose for containment release

RADTRAD-NAI CRE Nuclide Inventory Files

File Name	Attachment #	Case
palisades_loca_db_ast.nif	Attachment 2	Source term file
nai-1101-001rev0.dcf	Attachment 3	FP&L AST dose conversion factor file

RADTRAD-NAI CRE Release Fraction Timing Files

File Name	Table	Case
pal_cre_dnb_sec_ng.rft	Table 7-1	Release fraction timing file for secondary side release of noble gas for DNB fuel
pal_cre_fcm_sec_ng.rft	Table 7-2	Release fraction timing file for secondary side release of noble gas for FCM fuel
pal_cre_dnb_sec_iodine_ast.rft	Table 7-3	Release fraction timing file for secondary side release for DNB fuel
pal_cre_fcm_sec_iodine_ast.rft	Table 7-4	Release fraction timing file for secondary side release for FCM fuel
pal_cre_dnb_cont_ast.rft	Table 7-5	Release fraction timing file for containment release for DNB fuel
pal_cre_fcm_cont_ast.rft	Table 7-6	Release fraction timing file for containment release for FCM fuel

Attachment 1 Verification Comments for Calculation NAI-1149-015 Rev. 0

Comment 1

Section 2.0, 1st paragraph, 3rd sentence – There is an extra space in front of this sentence and the shine dose needs to be corrected in this sentence.

Response: *Corrections made.*

Comment 2

Page 11, Section 7.0 – "ASDV" should be "ADV."

Response: *Corrected.*

Comment 3

Page 11, Section 6.0 – Please provide further basis for ignoring the PCS and SG initial (i.e., Tech. Spec.) activity. This assumption should be reasonable based on prior PWR AST analyses such as Seabrook, St. Lucie and Turkey Point where the initial activity doses neglected were on the order of 10^{-2} rem TEDE or less.

Response: *The steam release for this event is the same as that used for the SGTR; therefore, the secondary side initial activity dose from the SGTR event has been added to the results and Reference 17 has been added. Sections 6.0 and 2.0 have been revised to note this.*

Comment 4

Page 15, Section 7.2.4, 1st paragraph, 2nd sentence – "gallon per day" should be "gallons per day."

Response: *Corrected.*

Comment 5

Page 15, Section 7.2.5, 1st paragraph, 2nd sentence and Page 31, Section 7.6.4, 1st paragraph, 2nd sentence – "offisite" should be "offsite."

Response: *Corrected.*

Comment 6

Page 26, Section 7.4.9, 1st sentence – Delete "the" in front of "discussed."

Response: *Corrected.*

Attachment 2 LOCA Design Basis AST Nuclide Inventory File

```
Nuclide Inventory Name:
Palisades AST Design Basis LOCA source term
Power Level:
 0.2703E+04
Nuclides:
107
Nuclide 001:
Co-58
  7
 0.6117120000E+07
 0.5800E+02
 0.0000E+00
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 002:
Co-60
  7
 0.1663401096E+09
 0.6000E+02
 0.0000E+00
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 003:
Kr-85
  1
 0.3382974720E+09
 0.8500E+02
 0.1052E+07
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 004:
Kr-85m
  1
 0.1612800000E+05
 0.8500E+02
 0.1948E+08
Kr-85    0.2110E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 005:
Kr-87
  1
 0.4578000000E+04
 0.8700E+02
 0.3756E+08
Rb-87    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 006:
Kr-88
  1
 0.1022400000E+05
 0.8800E+02
 0.5286E+08
Rb-88    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 007:
Rb-86
  3
 0.1612224000E+07
 0.8600E+02
 0.1959E+06
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 008:
Sr-89
```

```
  5
 0.4363200000E+07
 0.8900E+02
 0.7213E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 009:
Sr-90
  5
 0.9189573120E+09
 0.9000E+02
 0.8458E+07
Y-90     0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 010:
Sr-91
  5
 0.3420000000E+05
 0.9100E+02
 0.8874E+08
Y-91m    0.5780E+00
Y-91     0.4220E+00
none     0.0000E+00
Nuclide 011:
Sr-92
  5
 0.9756000000E+04
 0.9200E+02
 0.9557E+08
Y-92     0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 012:
Y-90
  9
 0.2304000000E+06
 0.9000E+02
 0.8737E+07
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 013:
Y-91
  9
 0.5055264000E+07
 0.9100E+02
 0.9264E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 014:
Y-92
  9
 0.1274400000E+05
 0.9200E+02
 0.9596E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 015:
Y-93
  9
 0.3636000000E+05
 0.9300E+02
 0.1101E+09
Zr-93    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 016:
Zr-95
  9
```

```
 0.5527872000E+07
 0.9500E+02
 0.1236E+09
Nb-95m   0.7000E-02
Nb-95    0.9930E+00
none     0.0000E+00
Nuclide 017:
Zr-97
  9
 0.6084000000E+05
 0.9700E+02
 0.1206E+09
Nb-97m   0.9470E+00
Nb-97    0.5300E-01
none     0.0000E+00
Nuclide 018:
Nb-95
  9
 0.3036960000E+07
 0.9500E+02
 0.1249E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 019:
Mo-99
  7
 0.2376000000E+06
 0.9900E+02
 0.1368E+09
Tc-99m   0.8760E+00
Tc-99    0.1240E+00
none     0.0000E+00
Nuclide 020:
Tc-99m
  7
 0.2167200000E+05
 0.9900E+02
 0.1198E+09
Tc-99    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 021:
Ru-103
  7
 0.3393792000E+07
 0.1030E+03
 0.1260E+09
Rh-103m  0.9970E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 022:
Ru-105
  7
 0.1598400000E+05
 0.1050E+03
 0.9451E+08
Rh-105   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 023:
Ru-106
  7
 0.3181248000E+08
 0.1060E+03
 0.5794E+08
Rh-106   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 024:
Rh-105
  7
 0.1272960000E+06
```

```
 0.1050E+03
 0.8741E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 025:
Sb-127
  4
 0.3326400000E+06
 0.1270E+03
 0.9111E+07
Te-127m  0.1760E+00
Te-127   0.8240E+00
none     0.0000E+00
Nuclide 026:
Sb-129
  4
 0.1555200000E+05
 0.1290E+03
 0.2568E+08
Te-129m  0.2250E+00
Te-129   0.7750E+00
none     0.0000E+00
Nuclide 027:
Te-127
  4
 0.3366000000E+05
 0.1270E+03
 0.9047E+07
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 028:
Te-127m
  4
 0.9417600000E+07
 0.1270E+03
 0.1223E+07
Te-127   0.9760E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 029:
Te-129
  4
 0.4176000000E+04
 0.1290E+03
 0.2528E+08
I-129    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 030:
Te-129m
  4
 0.2903040000E+07
 0.1290E+03
 0.3772E+07
Te-129   0.6500E+00
I-129    0.3500E+00
none     0.0000E+00
Nuclide 031:
Te-131m
  4
 0.1080000000E+06
 0.1310E+03
 0.1113E+08
Te-131   0.2220E+00
I-131    0.7780E+00
none     0.0000E+00
Nuclide 032:
Te-132
  4
 0.2815200000E+06
 0.1320E+03
```

```
 0.1048E+09
I-132    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 033:
I-131
  2
 0.6946560000E+06
 0.1310E+03
 0.7483E+08
Xe-131m  0.1110E-01
none     0.0000E+00
none     0.0000E+00
Nuclide 034:
I-132
  2
 0.8280000000E+04
 0.1320E+03
 0.1068E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 035:
I-133
  2
 0.7488000000E+05
 0.1330E+03
 0.1462E+09
Xe-133m  0.2900E-01
Xe-133   0.9710E+00
none     0.0000E+00
Nuclide 036:
I-134
  2
 0.3156000000E+04
 0.1340E+03
 0.1602E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 037:
I-135
  2
 0.2379600000E+05
 0.1350E+03
 0.1372E+09
Xe-135m  0.1540E+00
Xe-135   0.8460E+00
none     0.0000E+00
Nuclide 038:
Xe-133
  1
 0.4531680000E+06
 0.1330E+03
 0.1466E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 039:
Xe-135
  1
 0.3272400000E+05
 0.1350E+03
 0.4692E+08
Cs-135   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 040:
Cs-134
  3
 0.6507177120E+08
 0.1340E+03
 0.2037E+08
```

```
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 041:
Cs-136
  3
 0.1131840000E+07
 0.1360E+03
 0.5873E+07
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 042:
Cs-137
  3
 0.9467280000E+09
 0.1370E+03
 0.1100E+08
Ba-137m  0.9460E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 043:
Ba-139
  6
 0.4962000000E+04
 0.1390E+03
 0.1307E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 044:
Ba-140
  6
 0.1100736000E+07
 0.1400E+03
 0.1260E+09
La-140   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 045:
La-140
  9
 0.1449792000E+06
 0.1400E+03
 0.1299E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 046:
La-141
  9
 0.1414800000E+05
 0.1410E+03
 0.1193E+09
Ce-141   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 047:
La-142
  9
 0.5550000000E+04
 0.1420E+03
 0.1156E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 048:
Ce-141
  8
 0.2808086400E+07
 0.1410E+03
 0.1212E+09
none     0.0000E+00
```

```
none     0.0000E+00
none     0.0000E+00
Nuclide 049:
Ce-143
  8
 0.1188000000E+06
 0.1430E+03
 0.1115E+09
Pr-143   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 050:
Ce-144
  8
 0.2456352000E+08
 0.1440E+03
 0.1020E+09
Pr-144m  0.1780E-01
Pr-144   0.9822E+00
none     0.0000E+00
Nuclide 051:
Pr-143
  9
 0.1171584000E+07
 0.1430E+03
 0.1111E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 052:
Nd-147
  9
 0.9486720000E+06
 0.1470E+03
 0.4770E+08
Pm-147   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 053:
Np-239
  8
 0.2034720000E+06
 0.2390E+03
 0.1830E+10
Pu-239   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 054:
Pu-238
  8
 0.2768863824E+10
 0.2380E+03
 0.3927E+06
U-234    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 055:
Pu-239
  8
 0.7594336440E+12
 0.2390E+03
 0.3558E+05
U-235    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 056:
Pu-240
  8
 0.2062920312E+12
 0.2400E+03
 0.5406E+05
U-236    0.1000E+01
none     0.0000E+00
```

```
none     0.0000E+00
Nuclide 057:
Pu-241
  8
 0.4544294400E+09
 0.2410E+03
 0.1522E+08
U-237    0.2450E-04
Am-241   0.1000E+01
none     0.0000E+00
Nuclide 058:
Am-241
  9
 0.1363919472E+11
 0.2410E+03
 0.1884E+05
Np-237   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 059:
Cm-242
  9
 0.1406592000E+08
 0.2420E+03
 0.5669E+07
Pu-238   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 060:
Cm-244
  9
 0.5715081360E+09
 0.2440E+03
 0.5943E+06
Pu-240   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 061:
I-130
  2
 0.4449600000E+05
 0.1300E+03
 0.3743E+07
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 062:
Kr-83m
  1
 0.6588000000E+04
 0.8300E+02
 0.9119E+07
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 063:
Xe-138
  1
 0.8502000000E+03
 0.1380E+03
 0.1211E+09
Cs-138   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 064:
Xe-131m
  1
 0.1028160000E+07
 0.1310E+03
 0.8346E+06
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
```

```
Nuclide 065:
Xe-133m
  1
 0.1890432000E+06
 0.1330E+03
 0.4659E+07
Xe-133   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 066:
Xe-135m
  1
 0.9174000000E+03
 0.1350E+03
 0.2999E+08
Xe-135   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 067:
Cs-138
  3
 0.1932000000E+04
 0.1380E+03
 0.1340E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 068:
Cs-134m
  3
 0.1044000000E+05
 0.1340E+03
 0.4920E+07
Cs-134   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 069:
Rb-88
  3
 0.1068000000E+04
 0.8800E+02
 0.5369E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 070:
Rb-89
  3
 0.9120000000E+03
 0.8900E+02
 0.6895E+08
Sr-89    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 071:
Sb-124
  4
 0.5201280000E+07
 0.1240E+03
 0.1702E+06
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 072:
Sb-125
  4
 0.8741455200E+08
 0.1250E+03
 0.1567E+07
Te-125m  0.2280E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 073:
```

```
Sb-126
  4
 0.1071360000E+07
 0.1260E+03
 0.1107E+06
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 074:
Te-131
  4
 0.1500000000E+04
 0.1310E+03
 0.6601E+08
I-131    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 075:
Te-133
  4
 0.7470000000E+03
 0.1330E+03
 0.8639E+08
I-133    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 076:
Te-134
  4
 0.2508000000E+04
 0.1340E+03
 0.1220E+09
I-134    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 077:
Te-125m
  4
 0.5011200000E+07
 0.1250E+03
 0.3413E+06
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 078:
Te-133m
  4
 0.3324000000E+04
 0.1330E+03
 0.5406E+08
I-133    0.8700E+00
Te-133   0.1300E+00
none     0.0000E+00
Nuclide 079:
Ba-141
  6
 0.1096200000E+04
 0.1410E+03
 0.1188E+09
La-141   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 080:
Ba-137m
  6
 0.1531200000E+03
 0.1370E+03
 0.1043E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 081:
Pd-109
```

```
  7
 0.4833720000E+05
 0.1090E+03
 0.3327E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 082:
Rh-106
  7
 0.2990000000E+02
 0.1060E+03
 0.6285E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 083:
Rh-103m
  7
 0.3367200000E+04
 0.1030E+03
 0.1135E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 084:
Tc-101
  7
 0.8520000000E+03
 0.1010E+03
 0.1261E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 085:
Eu-154
  9
 0.2777068800E+09
 0.1540E+03
 0.1247E+07
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 086:
Eu-155
  9
 0.1565256960E+09
 0.1550E+03
 0.8448E+06
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 087:
Eu-156
  9
 0.1312416000E+07
 0.1560E+03
 0.2023E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 088:
La-143
  9
 0.8538000000E+03
 0.1430E+03
 0.1108E+09
Ce-143   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 089:
Nb-97
  9
```

```
 0.4326000000E+04
 0.9700E+02
 0.1216E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 090:
Nb-95m
  9
 0.3117600000E+06
 0.9500E+02
 0.8835E+06
Nb-95    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 091:
Pm-147
  9
 0.8278820780E+08
 0.1470E+03
 0.1292E+08
Sm-147   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 092:
Pm-148
  9
 0.4639680000E+06
 0.1480E+03
 0.2144E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 093:
Pm-149
  9
 0.1910880000E+06
 0.1490E+03
 0.4541E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 094:
Pm-151
  9
 0.1022400000E+06
 0.1510E+03
 0.1606E+08
Sm-151   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 095:
Pm-148m
  9
 0.3568320000E+07
 0.1480E+03
 0.2999E+07
Pm-148   0.4600E-01
none     0.0000E+00
none     0.0000E+00
Nuclide 096:
Pr-144
  9
 0.1036800000E+04
 0.1440E+03
 0.1025E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 097:
Pr-144m
  9
 0.4320000000E+03
```

```
 0.1440E+03
 0.1224E+07
Pr-144   0.9990E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 098:
Sm-153
  9
 0.1681200000E+06
 0.1530E+03
 0.4423E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 099:
Y-94
  9
 0.1146000000E+04
 0.9400E+02
 0.1105E+09
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 100:
Y-95
  9
 0.6420000000E+03
 0.9500E+02
 0.1183E+09
Zr-95    0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 101:
Y-91m
  9
 0.2982600000E+04
 0.9100E+02
 0.5151E+08
Y-91     0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 102:
Br-82
  2
 0.1270800000E+06
 0.8200E+02
 0.5282E+06
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 103:
Br-83
  2
 0.8604000000E+04
 0.8300E+02
 0.9102E+07
Kr-83m   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 104:
Br-84
  2
 0.1908000000E+04
 0.8400E+02
 0.1591E+08
none     0.0000E+00
none     0.0000E+00
none     0.0000E+00
Nuclide 105:
Am-242
  9
 0.5767200000E+05
 0.2420E+03
```

```
 0.9062E+07
Cm-242   0.8270E+00
Pu-242   0.1730E+00
none     0.0000E+00
Nuclide 106:
Np-238
  8
 0.1829088000E+06
 0.2380E+03
 0.4306E+08
Pu-238   0.1000E+01
none     0.0000E+00
none     0.0000E+00
Nuclide 107:
Pu-243
  8
 0.1784160000E+05
 0.2430E+03
 0.4690E+08
Am-243   0.1000E+01
none     0.0000E+00
none     0.0000E+00
End of Nuclear Inventory File
```

Attachment 3 RADTRAD-NAI Dose Conversion Factor File

```
NAI-1101-001rev0.DCF
Includes 107 istopes
         9 ORGANS DEFINED IN THIS FILE:
GONADS
BREAST
LUNGS
RED MARR
BONE SUR
THYROID
REMAINDER
EFFECTIVE
SKIN(FGR)
       107 NUCLIDES DEFINED IN THIS FILE:
Co-58     Y
Co-60     Y
Kr-85
Kr-85m
Kr-87
Kr-88
Rb-86     D
Sr-89     Y
Sr-90     Y
Sr-91     Y
Sr-92     Y
Y-90      Y
Y-91      Y
Y-92      Y
Y-93      Y
Zr-95     D
Zr-97     Y
Nb-95     Y
Mo-99     Y
Tc-99m    D
Ru-103    Y
Ru-105    Y
Ru-106    Y
Rh-105    Y
Sb-127    W
Sb-129    W
Te-127    W
Te-127m   W
Te-129    D
Te-129m   W
Te-131m   W
Te-132    W
I-131     D
I-132     D
I-133     D
I-134     D
I-135     D
Xe-133
Xe-135
Cs-134    D
Cs-136    D
Cs-137    D
Ba-139    D
Ba-140    D
La-140    W
La-141    D
La-142    D
Ce-141    Y
Ce-143    Y
Ce-144    Y
Pr-143    Y
Nd-147    Y
Np-239    W
Pu-238    W
Pu-239    W
Pu-240    W
Pu-241    W
Am-241    W
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Cm-242	W						
Cm-244	W						
I-130	D						
Kr-83m							
Xe-138							
Xe-131m							
Xe-133m							
Xe-135m							
Cs-138	D						
Cs-134m	D						
Rb-88	D						
Rb-89	D						
Sb-124	W						
Sb-125	W						
Sb-126	W						
Te-131	D						
Te-133	D						
Te-134	D						
Te-125m	W						
Te-133m	D						
Ba-141	D						
Ba-137m							
Pd-109	Y						
Rh-106							
Rh-103m	D						
Tc-101	D						
Eu-154	W						
Eu-155	W						
Eu-156	W						
La-143	W						
Nb-97	Y						
Nb-95m	Y						
Pm-147	Y						
Pm-148	Y						
Pm-149	Y						
Pm-151	Y						
Pm-148m	Y						
Pr-144	Y						
Pr-144m							
Sm-153	W						
Y-94	Y						
Y-95	Y						
Y-91m	Y						
Br-82	W						
Br-83	W						
Br-84	D						
Am-242	W						
Np-238	W						
Pu-243	Y						
	CLOUDSHINE	GROUND SHINE 8HR	GROUND SHINE 7DAY	GROUND SHINE RATE	INHALED ACUTE	INHALED CHRONIC	INGESTION
Co-58							
GONADS	4.660E-14	2.867E-11	5.828E-10	9.970E-16	-1.000E+00	6.170E-10	1.040E-09
BREAST	5.300E-14	2.737E-11	5.565E-10	9.520E-16	-1.000E+00	9.370E-10	1.790E-10
LUNGS	4.640E-14	2.617E-11	5.319E-10	9.100E-16	-1.000E+00	1.600E-08	8.530E-11
RED MARR	4.530E-14	2.671E-11	5.430E-10	9.290E-16	-1.000E+00	9.230E-10	2.600E-10
BONE SUR	7.410E-14	3.795E-11	7.716E-10	1.320E-15	-1.000E+00	6.930E-10	1.250E-10
THYROID	4.770E-14	2.720E-11	5.530E-10	9.460E-16	-1.000E+00	8.720E-10	6.310E-11
REMAINDER	4.440E-14	2.585E-11	5.255E-10	8.990E-16	-1.000E+00	1.890E-09	1.580E-09
EFFECTIVE	4.760E-14	2.732E-11	5.553E-10	9.500E-16	-1.000E+00	2.940E-09	8.090E-10
SKIN(FGR)	5.580E-14	3.278E-11	6.664E-10	1.140E-15	-1.000E+00	0.000E+00	0.000E+00
Co-60							
GONADS	1.230E-13	7.056E-11	1.480E-09	2.450E-15	-1.000E+00	4.760E-09	3.190E-09
BREAST	1.390E-13	6.739E-11	1.413E-09	2.340E-15	-1.000E+00	1.840E-08	1.100E-09
LUNGS	1.240E-13	6.537E-11	1.371E-09	2.270E-15	-1.000E+00	3.450E-07	8.770E-10
RED MARR	1.230E-13	6.710E-11	1.407E-09	2.330E-15	-1.000E+00	1.720E-08	1.320E-09
BONE SUR	1.780E-13	8.956E-11	1.879E-09	3.110E-15	-1.000E+00	1.350E-08	9.390E-10
THYROID	1.270E-13	6.480E-11	1.359E-09	2.250E-15	-1.000E+00	1.620E-08	7.880E-10
REMAINDER	1.200E-13	6.508E-11	1.365E-09	2.260E-15	-1.000E+00	3.600E-08	4.970E-09
EFFECTIVE	1.260E-13	6.768E-11	1.419E-09	2.350E-15	-1.000E+00	5.910E-08	2.770E-09
SKIN(FGR)	1.450E-13	7.948E-11	1.667E-09	2.760E-15	-1.000E+00	0.000E+00	0.000E+00
Kr-85							
GONADS	1.170E-16	8.121E-14	1.704E-12	2.820E-18	-1.000E+00	0.000E+00	0.000E+00

BREAST	1.340E-16	7.891E-14	1.656E-12	2.740E-18	1.000E+00	0.000E+00	0.000E+00
LUNGS	1.140E-16	7.056E-14	1.481E-12	2.450E-18	1.000E+00	0.000E+00	0.000E+00
RED MARR	1.090E-16	6.998E-14	1.469E-12	2.430E-18	1.000E+00	0.000E+00	0.000E+00
BONE SUR	2.200E-16	1.287E-13	2.702E-12	4.470E-18	1.000E+00	0.000E+00	0.000E+00
THYROID	1.180E-16	7.459E-14	1.565E-12	2.590E-18	1.000E+00	0.000E+00	0.000E+00
REMAINDER	1.090E-16	6.941E-14	1.457E-12	2.410E-18	1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.190E-16	7.603E-14	1.596E-12	2.640E-18	1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	1.320E-14	2.304E-11	4.835E-10	8.000E-16	1.000E+00	0.000E+00	0.000E+00
Kr-85m							
GONADS	7.310E-15	2.594E-12	3.653E-12	1.570E-16	1.000E+00	0.000E+00	0.000E+00
BREAST	8.410E-15	2.527E-12	3.560E-12	1.530E-16	1.000E+00	0.000E+00	0.000E+00
LUNGS	7.040E-15	2.379E-12	3.351E-12	1.440E-16	1.000E+00	0.000E+00	0.000E+00
RED MARR	6.430E-15	2.346E-12	3.304E-12	1.420E-16	1.000E+00	0.000E+00	0.000E+00
BONE SUR	1.880E-14	5.286E-12	7.446E-12	3.200E-16	1.000E+00	0.000E+00	0.000E+00
THYROID	7.330E-15	2.395E-12	3.374E-12	1.450E-16	1.000E+00	0.000E+00	0.000E+00
REMAINDER	6.640E-15	2.313E-12	3.257E-12	1.400E-16	1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	7.480E-15	2.511E-12	3.537E-12	1.520E-16	1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	2.240E-14	2.247E-11	3.164E-11	1.360E-15	1.000E+00	0.000E+00	0.000E+00
Kr-87							
GONADS	4.000E-14	4.962E-12	5.026E-12	7.610E-16	1.000E+00	0.000E+00	0.000E+00
BREAST	4.500E-14	4.740E-12	4.802E-12	7.270E-16	1.000E+00	0.000E+00	0.000E+00
LUNGS	4.040E-14	4.603E-12	4.663E-12	7.060E-16	1.000E+00	0.000E+00	0.000E+00
RED MARR	4.000E-14	4.708E-12	4.769E-12	7.220E-16	1.000E+00	0.000E+00	0.000E+00
BONE SUR	6.020E-14	6.514E-12	6.598E-12	9.990E-16	1.000E+00	0.000E+00	0.000E+00
THYROID	4.130E-14	4.473E-12	4.531E-12	6.860E-16	1.000E+00	0.000E+00	0.000E+00
REMAINDER	3.910E-14	4.590E-12	4.650E-12	7.040E-16	1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	4.120E-14	4.773E-12	4.835E-12	7.320E-16	1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	1.370E-13	8.802E-11	8.916E-11	1.350E-14	1.000E+00	0.000E+00	0.000E+00
Kr-88							
GONADS	9.900E-14	2.278E-11	2.655E-11	1.800E-15	1.000E+00	0.000E+00	0.000E+00
BREAST	1.110E-13	2.177E-11	2.537E-11	1.720E-15	1.000E+00	0.000E+00	0.000E+00
LUNGS	1.010E-13	2.139E-11	2.493E-11	1.690E-15	1.000E+00	0.000E+00	0.000E+00
RED MARR	1.000E-13	2.190E-11	2.552E-11	1.730E-15	1.000E+00	0.000E+00	0.000E+00
BONE SUR	1.390E-13	2.886E-11	3.363E-11	2.280E-15	1.000E+00	0.000E+00	0.000E+00
THYROID	1.030E-13	2.012E-11	2.345E-11	1.590E-15	1.000E+00	0.000E+00	0.000E+00
REMAINDER	9.790E-14	2.139E-11	2.493E-11	1.690E-15	1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.020E-13	2.202E-11	2.567E-11	1.740E-15	1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	1.350E-13	5.607E-11	6.534E-11	4.430E-15	1.000E+00	0.000E+00	0.000E+00
Rb-86							
GONADS	4.710E-15	2.788E-12	5.187E-11	9.740E-17	1.000E+00	1.340E-09	2.150E-09
BREAST	5.340E-15	2.662E-12	4.953E-11	9.300E-17	1.000E+00	1.330E-09	2.140E-09
LUNGS	4.710E-15	2.553E-12	4.750E-11	8.920E-17	1.000E+00	3.300E-09	2.140E-09
RED MARR	4.640E-15	2.619E-12	4.873E-11	9.150E-17	1.000E+00	2.320E-09	3.720E-09
BONE SUR	7.050E-15	3.635E-12	6.764E-11	1.270E-16	1.000E+00	4.270E-09	6.860E-09
THYROID	4.840E-15	2.599E-12	4.836E-11	9.080E-17	1.000E+00	1.330E-09	2.140E-09
REMAINDER	4.520E-15	2.542E-12	4.729E-11	8.880E-17	1.000E+00	1.380E-09	2.330E-09
EFFECTIVE	4.810E-15	2.665E-12	4.958E-11	9.310E-17	1.000E+00	1.790E-09	2.530E-09
SKIN(FGR)	4.850E-14	2.210E-10	4.111E-09	7.720E-15	1.000E+00	0.000E+00	0.000E+00
Sr-89							
GONADS	7.730E-17	7.155E-14	1.436E-12	2.490E-18	1.000E+00	7.950E-12	8.050E-12
BREAST	9.080E-17	7.212E-14	1.447E-12	2.510E-18	1.000E+00	7.960E-12	7.980E-12
LUNGS	7.080E-17	5.689E-14	1.142E-12	1.980E-18	1.000E+00	8.350E-08	7.970E-12
RED MARR	6.390E-17	5.345E-14	1.073E-12	1.860E-18	1.000E+00	1.070E-10	1.080E-10
BONE SUR	1.940E-16	1.560E-13	3.131E-12	5.430E-18	1.000E+00	1.590E-10	1.610E-10
THYROID	7.600E-17	6.063E-14	1.217E-12	2.110E-18	1.000E+00	7.960E-12	7.970E-12
REMAINDER	6.710E-17	5.603E-14	1.124E-12	1.950E-18	1.000E+00	3.970E-09	8.250E-09
EFFECTIVE	7.730E-17	6.523E-14	1.309E-12	2.270E-18	1.000E+00	1.120E-08	2.500E-09
SKIN(FGR)	3.690E-14	1.914E-10	3.841E-09	6.660E-15	1.000E+00	0.000E+00	0.000E+00
Sr-90							
GONADS	7.780E-18	9.590E-15	2.014E-13	3.330E-19	1.000E+00	2.690E-10	5.040E-11
BREAST	9.490E-18	1.008E-14	2.116E-13	3.500E-19	1.000E+00	2.690E-10	5.040E-11
LUNGS	6.440E-18	6.307E-15	1.324E-13	2.190E-19	1.000E+00	2.860E-06	5.040E-11
RED MARR	5.440E-18	5.558E-15	1.167E-13	1.930E-19	1.000E+00	3.280E-08	6.450E-09
BONE SUR	2.280E-17	2.393E-14	5.025E-13	8.310E-19	1.000E+00	7.090E-08	1.390E-08
THYROID	7.330E-18	7.171E-15	1.506E-13	2.490E-19	1.000E+00	2.690E-10	5.040E-11
REMAINDER	6.110E-18	6.422E-15	1.348E-13	2.230E-19	1.000E+00	5.730E-09	6.700E-09
EFFECTIVE	7.530E-18	8.179E-15	1.717E-13	2.840E-19	1.000E+00	3.510E-07	3.230E-09
SKIN(FGR)	9.200E-15	4.032E-12	8.465E-11	1.400E-16	1.000E+00	0.000E+00	0.000E+00
Sr-91							
GONADS	3.380E-14	2.155E-11	5.062E-11	1.026E-15	1.000E+00	5.650E-11	2.520E-10
BREAST	3.830E-14	2.059E-11	4.838E-11	9.806E-16	1.000E+00	1.740E-11	3.676E-11
LUNGS	3.370E-14	1.970E-11	4.626E-11	9.376E-16	1.000E+00	2.130E-09	1.055E-11
RED MARR	3.310E-14	2.011E-11	4.722E-11	9.570E-16	1.000E+00	2.230E-11	5.659E-11

BONE SUR	5.200E-14	2.852E-11	6.709E-11	1.360E-15	-1.000E+00	1.270E-11	2.070E-11
THYROID	3.470E-14	2.035E-11	4.782E-11	9.693E-16	-1.000E+00	9.640E-12	1.968E-12
REMAINDER	3.240E-14	1.948E-11	4.573E-11	9.268E-16	-1.000E+00	5.780E-10	2.557E-09
EFFECTIVE	3.450E-14	2.057E-11	4.832E-11	9.793E-16	-1.000E+00	4.490E-10	8.455E-10
SKIN(FGR)	8.140E-14	1.748E-10	3.987E-10	8.080E-15	-1.000E+00	0.000E+00	0.000E+00
Sr-92							
GONADS	6.610E-14	1.593E-11	1.830E-11	1.300E-15	-1.000E+00	1.020E-11	8.180E-11
BREAST	7.480E-14	1.520E-11	1.745E-11	1.240E-15	-1.000E+00	6.490E-12	1.700E-11
LUNGS	6.670E-14	1.483E-11	1.703E-11	1.210E-15	-1.000E+00	1.050E-09	7.220E-12
RED MARR	6.620E-14	1.520E-11	1.745E-11	1.240E-15	-1.000E+00	6.980E-12	2.290E-11
BONE SUR	9.490E-14	2.010E-11	2.308E-11	1.640E-15	-1.000E+00	4.360E-12	8.490E-12
THYROID	6.820E-14	1.446E-11	1.661E-11	1.180E-15	-1.000E+00	3.920E-12	1.300E-12
REMAINDER	6.450E-14	1.471E-11	1.689E-11	1.200E-15	-1.000E+00	2.900E-10	1.720E-09
EFFECTIVE	6.790E-14	1.532E-11	1.759E-11	1.250E-15	-1.000E+00	2.180E-10	5.430E-10
SKIN(FGR)	8.560E-14	2.280E-11	2.618E-11	1.860E-15	-1.000E+00	0.000E+00	0.000E+00
Y-90							
GONADS	1.890E-16	1.586E-13	1.601E-12	5.750E-18	-1.000E+00	5.170E-13	1.430E-14
BREAST	2.200E-16	1.578E-13	1.593E-12	5.720E-18	-1.000E+00	5.170E-13	1.270E-14
LUNGS	1.770E-16	1.313E-13	1.326E-12	4.760E-18	-1.000E+00	9.310E-09	1.260E-14
RED MARR	1.620E-16	1.261E-13	1.273E-12	4.570E-18	-1.000E+00	1.520E-11	3.700E-13
BONE SUR	4.440E-16	3.228E-13	3.259E-12	1.170E-17	-1.000E+00	1.510E-11	3.670E-13
THYROID	1.870E-16	1.385E-13	1.398E-12	5.020E-18	-1.000E+00	5.170E-13	1.260E-14
REMAINDER	1.680E-16	1.291E-13	1.303E-12	4.680E-18	-1.000E+00	3.870E-09	9.680E-09
EFFECTIVE	1.900E-16	1.468E-13	1.482E-12	5.320E-18	-1.000E+00	2.280E-09	2.910E-09
SKIN(FGR)	6.240E-14	2.897E-10	2.924E-09	1.050E-14	-1.000E+00	0.000E+00	0.000E+00
Y-91							
GONADS	2.560E-16	1.756E-13	3.546E-12	6.110E-18	-1.000E+00	8.200E-12	3.540E-12
BREAST	2.930E-16	1.713E-13	3.459E-12	5.960E-18	-1.000E+00	8.920E-12	5.540E-13
LUNGS	2.500E-16	1.526E-13	3.082E-12	5.310E-18	-1.000E+00	9.870E-08	2.020E-13
RED MARR	2.410E-16	1.521E-13	3.070E-12	5.290E-18	-1.000E+00	3.190E-10	6.590E-12
BONE SUR	4.560E-16	2.903E-13	5.862E-12	1.010E-17	-1.000E+00	3.180E-10	6.130E-12
THYROID	2.600E-16	1.564E-13	3.157E-12	5.440E-18	-1.000E+00	8.500E-12	1.290E-13
REMAINDER	2.390E-16	1.509E-13	3.047E-12	5.250E-18	-1.000E+00	4.200E-09	8.570E-09
EFFECTIVE	2.600E-16	1.650E-13	3.332E-12	5.740E-18	-1.000E+00	1.320E-08	2.570E-09
SKIN(FGR)	3.850E-14	1.989E-10	4.016E-09	6.920E-15	-1.000E+00	0.000E+00	0.000E+00
Y-92							
GONADS	1.270E-14	3.855E-12	4.872E-12	2.650E-16	-1.000E+00	2.610E-12	1.960E-11
BREAST	1.440E-14	3.680E-12	4.652E-12	2.530E-16	-1.000E+00	1.500E-12	3.550E-12
LUNGS	1.270E-14	3.535E-12	4.468E-12	2.430E-16	-1.000E+00	1.240E-09	1.390E-12
RED MARR	1.250E-14	3.608E-12	4.560E-12	2.480E-16	-1.000E+00	2.070E-12	4.910E-12
BONE SUR	1.950E-14	5.091E-12	6.435E-12	3.500E-16	-1.000E+00	1.510E-12	1.750E-12
THYROID	1.300E-14	3.579E-12	4.523E-12	2.460E-16	-1.000E+00	1.050E-12	1.770E-13
REMAINDER	1.220E-14	3.506E-12	4.431E-12	2.410E-16	-1.000E+00	2.030E-10	1.700E-09
EFFECTIVE	1.300E-14	3.680E-12	4.652E-12	2.530E-16	-1.000E+00	2.110E-10	5.150E-10
SKIN(FGR)	1.140E-13	2.022E-10	2.556E-10	1.390E-14	-1.000E+00	0.000E+00	0.000E+00
Y-93							
GONADS	4.670E-15	2.108E-12	4.989E-12	9.510E-17	-1.000E+00	5.310E-12	2.200E-11
BREAST	5.300E-15	2.026E-12	4.794E-12	9.140E-17	-1.000E+00	1.740E-12	3.130E-12
LUNGS	4.680E-15	1.937E-12	4.585E-12	8.740E-17	-1.000E+00	2.520E-09	8.670E-13
RED MARR	4.580E-15	1.972E-12	4.669E-12	8.900E-17	-1.000E+00	4.040E-12	4.930E-12
BONE SUR	7.580E-15	2.948E-12	6.977E-12	1.330E-16	-1.000E+00	3.140E-12	1.730E-12
THYROID	4.790E-15	1.908E-12	4.516E-12	8.610E-17	-1.000E+00	9.260E-13	1.260E-13
REMAINDER	4.510E-15	1.919E-12	4.543E-12	8.660E-17	-1.000E+00	9.250E-10	4.090E-09
EFFECTIVE	4.800E-15	2.021E-12	4.784E-12	9.120E-17	-1.000E+00	5.820E-10	1.230E-09
SKIN(FGR)	8.500E-14	2.726E-10	6.452E-10	1.230E-14	-1.000E+00	0.000E+00	0.000E+00
Zr-95							
GONADS	3.530E-14	2.182E-11	4.421E-10	7.590E-16	-1.000E+00	1.880E-09	8.160E-10
BREAST	4.010E-14	2.084E-11	4.223E-10	7.250E-16	-1.000E+00	1.910E-09	1.050E-10
LUNGS	3.510E-14	1.989E-11	4.030E-10	6.920E-16	-1.000E+00	2.170E-09	2.340E-11
RED MARR	3.430E-14	2.030E-11	4.112E-10	7.060E-16	-1.000E+00	1.300E-08	2.140E-10
BONE SUR	5.620E-14	2.875E-11	5.824E-10	1.000E-15	-1.000E+00	1.030E-07	4.860E-10
THYROID	3.610E-14	2.076E-11	4.205E-10	7.220E-16	-1.000E+00	1.440E-09	8.270E-12
REMAINDER	3.360E-14	1.963E-11	3.978E-10	6.830E-16	-1.000E+00	2.280E-09	2.530E-09
EFFECTIVE	3.600E-14	2.078E-11	4.211E-10	7.230E-16	-1.000E+00	6.390E-09	1.020E-09
SKIN(FGR)	4.500E-14	2.561E-11	5.190E-10	8.910E-16	-1.000E+00	0.000E+00	0.000E+00
Zr-97							
GONADS	8.800E-15	2.179E-11	7.799E-11	9.253E-16	-1.000E+00	1.840E-10	6.228E-10
BREAST	9.990E-15	2.083E-11	7.455E-11	8.846E-16	-1.000E+00	4.700E-11	8.137E-11
LUNGS	8.810E-15	1.992E-11	7.127E-11	8.456E-16	-1.000E+00	4.100E-09	1.770E-11
RED MARR	8.640E-15	2.034E-11	7.279E-11	8.634E-16	-1.000E+00	6.370E-11	1.302E-10
BONE SUR	1.380E-14	2.881E-11	1.031E-10	1.224E-15	-1.000E+00	3.500E-11	4.558E-11
THYROID	9.030E-15	2.061E-11	7.377E-11	8.755E-16	-1.000E+00	2.310E-11	2.671E-12
REMAINDER	8.480E-15	1.966E-11	7.035E-11	8.345E-16	-1.000E+00	2.040E-09	6.990E-09

EFFECTIVE	9.020E-15	2.078E-11	7.438E-11	8.824E-16	-1.000E+00	1.170E-09	2.283E-09
SKIN(FGR)	5.550E-14	2.281E-10	8.148E-10	9.587E-15	-1.000E+00	0.000E+00	0.000E+00
Nb-95							
GONADS	3.660E-14	2.253E-11	4.435E-10	7.850E-16	-1.000E+00	4.320E-10	8.050E-10
BREAST	4.160E-14	2.150E-11	4.231E-10	7.490E-16	-1.000E+00	4.070E-10	1.070E-10
LUNGS	3.650E-14	2.055E-11	4.045E-10	7.160E-16	-1.000E+00	8.320E-09	2.740E-11
RED MARR	3.560E-14	2.101E-11	4.135E-10	7.320E-16	-1.000E+00	4.420E-10	1.990E-10
BONE SUR	5.790E-14	2.957E-11	5.819E-10	1.030E-15	-1.000E+00	5.130E-10	2.940E-10
THYROID	3.750E-14	2.144E-11	4.220E-10	7.470E-16	-1.000E+00	3.580E-10	1.180E-11
REMAINDER	3.490E-14	2.032E-11	4.000E-10	7.080E-16	-1.000E+00	1.070E-09	1.470E-09
EFFECTIVE	3.740E-14	2.147E-11	4.226E-10	7.480E-16	-1.000E+00	1.570E-09	6.950E-10
SKIN(FGR)	4.300E-14	2.598E-11	5.112E-10	9.050E-16	-1.000E+00	0.000E+00	0.000E+00
Mo-99							
GONADS	7.130E-15	4.282E-12	4.403E-11	1.550E-16	-1.000E+00	9.510E-11	2.180E-10
BREAST	8.130E-15	4.116E-12	4.233E-11	1.490E-16	-1.000E+00	2.750E-11	3.430E-11
LUNGS	7.060E-15	3.867E-12	3.977E-11	1.400E-16	-1.000E+00	4.290E-09	1.510E-11
RED MARR	6.820E-15	3.923E-12	4.034E-11	1.420E-16	-1.000E+00	5.240E-11	8.320E-11
BONE SUR	1.240E-14	6.105E-12	6.278E-11	2.210E-16	-1.000E+00	4.130E-11	6.320E-11
THYROID	7.270E-15	4.033E-12	4.147E-11	1.460E-16	-1.000E+00	1.520E-11	1.030E-11
REMAINDER	6.740E-15	3.812E-12	3.920E-11	1.380E-16	-1.000E+00	1.740E-09	4.280E-09
EFFECTIVE	7.280E-15	4.061E-12	4.176E-11	1.470E-16	-1.000E+00	1.070E-09	1.360E-09
SKIN(FGR)	3.140E-14	1.039E-10	1.068E-09	3.760E-15	-1.000E+00	0.000E+00	0.000E+00
Tc-99m							
GONADS	5.750E-15	2.334E-12	3.877E-12	1.240E-16	-1.000E+00	2.770E-12	9.750E-12
BREAST	6.650E-15	2.258E-12	3.752E-12	1.200E-16	-1.000E+00	2.150E-12	3.570E-12
LUNGS	5.490E-15	2.127E-12	3.533E-12	1.130E-16	-1.000E+00	2.280E-11	3.140E-12
RED MARR	4.910E-15	2.070E-12	3.439E-12	1.100E-16	-1.000E+00	3.360E-12	6.290E-12
BONE SUR	1.630E-14	5.383E-12	8.942E-12	2.860E-16	-1.000E+00	2.620E-12	4.060E-12
THYROID	5.750E-15	2.145E-12	3.564E-12	1.140E-16	-1.000E+00	5.010E-11	8.460E-11
REMAINDER	5.150E-15	2.070E-12	3.439E-12	1.100E-16	-1.000E+00	1.020E-11	3.340E-11
EFFECTIVE	5.890E-15	2.277E-12	3.783E-12	1.210E-16	-1.000E+00	8.800E-12	1.680E-11
SKIN(FGR)	7.140E-15	2.710E-12	4.502E-12	1.440E-16	-1.000E+00	0.000E+00	0.000E+00
Ru-103							
GONADS	2.190E-14	1.404E-11	2.783E-10	4.892E-16	-1.000E+00	3.070E-10	5.720E-10
BREAST	2.510E-14	1.350E-11	2.677E-10	4.705E-16	-1.000E+00	3.110E-10	1.200E-10
LUNGS	2.180E-14	1.273E-11	2.522E-10	4.432E-16	-1.000E+00	1.560E-08	7.310E-11
RED MARR	2.100E-14	1.287E-11	2.551E-10	4.483E-16	-1.000E+00	3.190E-10	1.660E-10
BONE SUR	3.890E-14	1.958E-11	3.882E-10	6.823E-16	-1.000E+00	2.370E-10	9.631E-11
THYROID	2.240E-14	1.331E-11	2.639E-10	4.638E-16	-1.000E+00	2.570E-10	6.250E-11
REMAINDER	2.080E-14	1.248E-11	2.472E-10	4.346E-16	-1.000E+00	1.250E-09	2.110E-09
EFFECTIVE	2.250E-14	1.332E-11	2.641E-10	4.642E-16	-1.000E+00	2.420E-09	8.271E-10
SKIN(FGR)	2.770E-14	1.785E-11	3.543E-10	6.229E-16	-1.000E+00	0.000E+00	0.000E+00
Ru-105							
GONADS	3.720E-14	1.327E-11	1.861E-11	8.070E-16	-1.000E+00	1.590E-11	9.670E-11
BREAST	4.240E-14	1.271E-11	1.783E-11	7.730E-16	-1.000E+00	6.610E-12	1.590E-11
LUNGS	3.700E-14	1.210E-11	1.697E-11	7.360E-16	-1.000E+00	5.730E-10	6.210E-12
RED MARR	3.590E-14	1.230E-11	1.725E-11	7.480E-16	-1.000E+00	7.700E-12	2.350E-11
BONE SUR	6.280E-14	1.809E-11	2.537E-11	1.100E-15	-1.000E+00	4.620E-12	8.890E-12
THYROID	3.800E-14	1.260E-11	1.766E-11	7.660E-16	-1.000E+00	4.150E-12	1.820E-12
REMAINDER	3.540E-14	1.189E-11	1.667E-11	7.230E-16	-1.000E+00	1.610E-10	8.540E-10
EFFECTIVE	3.810E-14	1.265E-11	1.773E-11	7.690E-16	-1.000E+00	1.230E-10	2.870E-10
SKIN(FGR)	6.730E-14	7.368E-11	1.033E-10	4.480E-15	-1.000E+00	0.000E+00	0.000E+00
Ru-106							
GONADS	0.000E+00	6.411E-12	1.340E-10	2.230E-16	-1.000E+00	1.300E-09	1.640E-09
BREAST	0.000E+00	6.152E-12	1.286E-10	2.140E-16	-1.000E+00	1.780E-09	1.440E-09
LUNGS	0.000E+00	5.836E-12	1.220E-10	2.030E-16	-1.000E+00	1.040E-06	1.420E-09
RED MARR	0.000E+00	5.893E-12	1.232E-10	2.050E-16	-1.000E+00	1.760E-09	1.460E-09
BONE SUR	0.000E+00	8.883E-12	1.856E-10	3.090E-16	-1.000E+00	1.610E-09	1.430E-09
THYROID	0.000E+00	6.066E-12	1.268E-10	2.110E-16	-1.000E+00	1.720E-09	1.410E-09
REMAINDER	0.000E+00	5.721E-12	1.196E-10	1.990E-16	-1.000E+00	1.200E-08	2.110E-08
EFFECTIVE	0.000E+00	6.095E-12	1.274E-10	2.120E-16	-1.000E+00	1.290E-07	7.400E-09
SKIN(FGR)	0.000E+00	4.082E-10	8.531E-09	1.420E-14	-1.000E+00	0.000E+00	0.000E+00
Rh-105							
GONADS	3.640E-15	2.127E-12	1.411E-11	7.980E-17	-1.000E+00	2.110E-11	5.800E-11
BREAST	4.160E-15	2.063E-12	1.369E-11	7.740E-17	-1.000E+00	5.610E-12	8.970E-12
LUNGS	3.570E-15	1.935E-12	1.284E-11	7.260E-17	-1.000E+00	9.580E-10	3.860E-12
RED MARR	3.380E-15	1.946E-12	1.291E-11	7.300E-17	-1.000E+00	7.770E-12	1.470E-11
BONE SUR	7.530E-15	3.332E-12	2.210E-11	1.250E-16	-1.000E+00	4.460E-12	6.750E-12
THYROID	3.680E-15	1.983E-12	1.316E-11	7.440E-17	-1.000E+00	2.880E-12	2.910E-12
REMAINDER	3.390E-15	1.885E-12	1.250E-11	7.070E-17	-1.000E+00	4.530E-10	1.270E-09
EFFECTIVE	3.720E-15	2.031E-12	1.347E-11	7.620E-17	-1.000E+00	2.580E-10	3.990E-10
SKIN(FGR)	1.070E-14	4.691E-12	3.112E-11	1.760E-16	-1.000E+00	0.000E+00	0.000E+00
Sb-127							

GONADS	3.260E-14	1.985E-11	2.441E-10	7.100E-16	-1.000E+00	2.520E-10	6.140E-10
BREAST	3.720E-14	1.904E-11	2.341E-10	6.810E-16	-1.000E+00	9.120E-11	7.600E-11
LUNGS	3.240E-14	1.809E-11	2.224E-10	6.470E-16	-1.000E+00	6.940E-09	1.570E-11
RED MARR	3.140E-14	1.834E-11	2.255E-10	6.560E-16	-1.000E+00	1.610E-10	1.330E-10
BONE SUR	5.520E-14	2.720E-11	3.345E-10	9.730E-16	-1.000E+00	1.340E-10	5.240E-11
THYROID	3.330E-14	1.884E-11	2.317E-10	6.740E-16	-1.000E+00	6.150E-11	4.640E-12
REMAINDER	3.090E-14	1.775E-11	2.183E-10	6.350E-16	-1.000E+00	2.330E-09	5.870E-09
EFFECTIVE	3.330E-14	1.890E-11	2.324E-10	6.760E-16	-1.000E+00	1.630E-09	1.950E-09
SKIN(FGR)	5.580E-14	7.967E-11	9.799E-10	2.850E-15	-1.000E+00	0.000E+00	0.000E+00
Sb-129							
GONADS	6.970E-14	2.336E-11	3.231E-11	1.440E-15	-1.000E+00	2.150E-11	1.510E-10
BREAST	7.910E-14	2.222E-11	3.074E-11	1.370E-15	-1.000E+00	1.280E-11	2.560E-11
LUNGS	6.980E-14	2.141E-11	2.962E-11	1.320E-15	-1.000E+00	8.980E-10	9.390E-12
RED MARR	6.860E-14	2.190E-11	3.029E-11	1.350E-15	-1.000E+00	1.700E-11	3.670E-11
BONE SUR	1.070E-13	3.033E-11	4.196E-11	1.870E-15	-1.000E+00	1.460E-11	1.340E-11
THYROID	7.160E-14	2.174E-11	3.007E-11	1.340E-15	-1.000E+00	9.720E-12	1.470E-12
REMAINDER	6.710E-14	2.125E-11	2.939E-11	1.310E-15	-1.000E+00	1.870E-10	1.450E-09
EFFECTIVE	7.140E-14	2.238E-11	3.096E-11	1.380E-15	-1.000E+00	1.740E-10	4.840E-10
SKIN(FGR)	1.050E-13	8.273E-11	1.144E-10	5.100E-15	-1.000E+00	0.000E+00	0.000E+00
Te-127							
GONADS	2.370E-16	1.191E-13	2.661E-13	5.480E-18	-1.000E+00	2.020E-12	4.020E-12
BREAST	2.730E-16	1.158E-13	2.588E-13	5.330E-18	-1.000E+00	1.880E-12	3.000E-12
LUNGS	2.320E-16	1.060E-13	2.370E-13	4.880E-18	-1.000E+00	4.270E-10	2.890E-12
RED MARR	2.210E-16	1.058E-13	2.365E-13	4.870E-18	-1.000E+00	4.090E-12	6.570E-12
BONE SUR	4.650E-16	1.862E-13	4.162E-13	8.570E-18	-1.000E+00	4.090E-12	6.460E-12
THYROID	2.400E-16	1.106E-13	2.472E-13	5.090E-18	-1.000E+00	1.840E-12	2.860E-12
REMAINDER	2.210E-16	1.036E-13	2.316E-13	4.770E-18	-1.000E+00	1.110E-10	6.130E-10
EFFECTIVE	2.420E-16	1.125E-13	2.515E-13	5.180E-18	-1.000E+00	8.600E-11	1.870E-10
SKIN(FGR)	1.140E-14	1.173E-11	2.622E-11	5.400E-16	-1.000E+00	0.000E+00	0.000E+00
Te-127m							
GONADS	1.900E-16	4.689E-13	9.642E-12	1.630E-17	-1.000E+00	1.100E-10	1.250E-10
BREAST	2.690E-16	5.150E-13	1.059E-11	1.790E-17	-1.000E+00	1.100E-10	9.740E-11
LUNGS	7.620E-17	1.602E-13	3.295E-12	5.570E-18	-1.000E+00	3.340E-08	9.620E-11
RED MARR	6.430E-17	1.249E-13	2.567E-12	4.340E-18	-1.000E+00	5.360E-09	5.430E-09
BONE SUR	3.940E-16	9.005E-13	1.852E-11	3.130E-17	-1.000E+00	2.040E-08	2.070E-08
THYROID	1.500E-16	2.779E-13	5.714E-12	9.660E-18	-1.000E+00	9.660E-11	9.430E-11
REMAINDER	8.640E-17	1.999E-13	4.111E-12	6.950E-18	-1.000E+00	1.660E-09	2.980E-09
EFFECTIVE	1.470E-16	3.251E-13	6.684E-12	1.130E-17	-1.000E+00	5.810E-09	2.230E-09
SKIN(FGR)	8.490E-16	1.496E-12	3.076E-11	5.200E-17	-1.000E+00	0.000E+00	0.000E+00
Te-129							
GONADS	2.710E-15	3.889E-13	3.922E-13	6.510E-17	-1.000E+00	1.750E-12	1.590E-12
BREAST	3.120E-15	3.800E-13	3.832E-13	6.360E-17	-1.000E+00	1.680E-12	6.050E-13
LUNGS	2.640E-15	3.298E-13	3.326E-13	5.520E-17	-1.000E+00	1.330E-10	4.910E-13
RED MARR	2.540E-15	3.298E-13	3.326E-13	5.520E-17	-1.000E+00	1.970E-12	7.640E-13
BONE SUR	4.880E-15	5.753E-13	5.802E-13	9.630E-17	-1.000E+00	2.030E-12	5.400E-13
THYROID	2.740E-15	3.525E-13	3.555E-13	5.900E-17	-1.000E+00	1.630E-12	3.360E-13
REMAINDER	2.520E-15	3.262E-13	3.289E-13	5.460E-17	-1.000E+00	2.400E-11	1.790E-10
EFFECTIVE	2.750E-15	3.590E-13	3.621E-13	6.010E-17	-1.000E+00	2.420E-11	5.450E-11
SKIN(FGR)	3.570E-14	3.429E-11	3.458E-11	5.740E-15	-1.000E+00	0.000E+00	0.000E+00
Te-129m							
GONADS	1.560E-15	2.206E-12	4.799E-11	8.561E-17	-1.000E+00	1.780E-10	2.420E-10
BREAST	1.810E-15	2.181E-12	4.739E-11	8.454E-17	-1.000E+00	1.690E-10	1.664E-10
LUNGS	1.460E-15	1.741E-12	3.815E-11	6.808E-17	-1.000E+00	4.030E-08	1.593E-10
RED MARR	1.420E-15	1.729E-12	3.793E-11	6.768E-17	-1.000E+00	3.100E-09	3.500E-09
BONE SUR	2.600E-15	3.287E-12	7.147E-11	1.275E-16	-1.000E+00	7.050E-09	7.990E-09
THYROID	1.560E-15	1.923E-12	4.201E-11	7.495E-17	-1.000E+00	1.560E-10	1.572E-10
REMAINDER	1.410E-15	1.746E-12	3.822E-11	6.819E-17	-1.000E+00	3.270E-09	7.196E-09
EFFECTIVE	1.550E-15	1.974E-12	4.308E-11	7.686E-17	-1.000E+00	6.470E-09	2.925E-09
SKIN(FGR)	1.490E-14	1.501E-10	3.360E-09	6.001E-15	-1.000E+00	0.000E+00	0.000E+00
Te-131m							
GONADS	6.850E-14	4.020E-11	2.343E-10	1.535E-15	-1.000E+00	2.340E-10	7.415E-10
BREAST	7.780E-14	3.853E-11	2.246E-10	1.472E-15	-1.000E+00	9.250E-11	1.361E-10
LUNGS	6.830E-14	3.657E-11	2.131E-10	1.397E-15	-1.000E+00	2.230E-09	6.335E-11
RED MARR	6.680E-14	3.736E-11	2.178E-10	1.427E-15	-1.000E+00	1.410E-10	2.435E-10
BONE SUR	1.090E-13	5.467E-11	3.189E-10	2.090E-15	-1.000E+00	2.270E-10	3.248E-10
THYROID	7.020E-14	3.741E-11	2.181E-10	1.429E-15	-1.000E+00	3.610E-08	4.383E-08
REMAINDER	6.550E-14	3.626E-11	2.113E-10	1.385E-15	-1.000E+00	9.460E-10	3.153E-09
EFFECTIVE	7.010E-14	3.825E-11	2.229E-10	1.461E-15	-1.000E+00	1.730E-09	2.514E-09
SKIN(FGR)	8.850E-14	1.033E-10	6.188E-10	4.056E-15	-1.000E+00	0.000E+00	0.000E+00
Te-132							
GONADS	1.020E-14	6.812E-12	7.706E-11	2.450E-16	-1.000E+00	4.150E-10	5.410E-10
BREAST	1.180E-14	6.756E-12	7.643E-11	2.430E-16	-1.000E+00	3.630E-10	3.500E-10
LUNGS	9.650E-15	5.727E-12	6.479E-11	2.060E-16	-1.000E+00	1.670E-09	3.300E-10

RED MARR	8.950E-15	5.588E-12	6.322E-11	2.010E-16	-1.000E+00	4.270E-10	4.440E-10
BONE SUR	2.420E-14	1.273E-11	1.441E-10	4.580E-16	-1.000E+00	7.120E-10	8.300E-10
THYROID	1.020E-14	5.978E-12	6.762E-11	2.150E-16	-1.000E+00	6.280E-08	5.950E-08
REMAINDER	9.160E-15	5.644E-12	6.385E-11	2.030E-16	-1.000E+00	7.890E-10	1.490E-09
EFFECTIVE	1.030E-14	6.339E-12	7.171E-11	2.280E-16	-1.000E+00	2.550E-09	2.540E-09
SKIN(FGR)	1.390E-14	8.313E-12	9.405E-11	2.990E-16	-1.000E+00	0.000E+00	0.000E+00
I-131							
GONADS	1.780E-14	1.119E-11	1.789E-10	3.940E-16	-1.000E+00	2.530E-11	4.070E-11
BREAST	2.040E-14	1.082E-11	1.730E-10	3.810E-16	-1.000E+00	7.880E-11	1.210E-10
LUNGS	1.760E-14	1.016E-11	1.626E-10	3.580E-16	-1.000E+00	6.570E-10	1.020E-10
RED MARR	1.680E-14	1.022E-11	1.635E-10	3.600E-16	-1.000E+00	6.260E-11	9.440E-11
BONE SUR	3.450E-14	1.675E-11	2.679E-10	5.900E-16	-1.000E+00	5.730E-11	8.720E-11
THYROID	1.810E-14	1.053E-11	1.685E-10	3.710E-16	-1.000E+00	2.920E-07	4.760E-07
REMAINDER	1.670E-14	9.908E-12	1.585E-10	3.490E-16	-1.000E+00	8.030E-11	1.570E-10
EFFECTIVE	1.820E-14	1.067E-11	1.707E-10	3.760E-16	-1.000E+00	8.890E-09	1.440E-08
SKIN(FGR)	2.980E-14	1.825E-11	2.920E-10	6.430E-16	-1.000E+00	0.000E+00	0.000E+00
I-132							
GONADS	1.090E-13	2.523E-11	2.771E-11	2.320E-15	-1.000E+00	9.950E-12	2.330E-11
BREAST	1.240E-13	2.414E-11	2.652E-11	2.220E-15	-1.000E+00	1.410E-11	2.520E-11
LUNGS	1.090E-13	2.305E-11	2.532E-11	2.120E-15	-1.000E+00	2.710E-10	2.640E-11
RED MARR	1.070E-13	2.360E-11	2.592E-11	2.170E-15	-1.000E+00	1.400E-11	2.460E-11
BONE SUR	1.730E-13	3.327E-11	3.655E-11	3.060E-15	-1.000E+00	1.240E-11	2.190E-11
THYROID	1.120E-13	2.381E-11	2.616E-11	2.190E-15	-1.000E+00	1.740E-09	3.870E-09
REMAINDER	1.050E-13	2.283E-11	2.509E-11	2.100E-15	-1.000E+00	3.780E-11	1.650E-10
EFFECTIVE	1.120E-13	2.403E-11	2.640E-11	2.210E-15	-1.000E+00	1.030E-10	1.820E-10
SKIN(FGR)	1.580E-13	8.199E-11	9.007E-11	7.540E-15	-1.000E+00	0.000E+00	0.000E+00
I-133							
GONADS	2.870E-14	1.585E-11	6.748E-11	6.270E-16	-1.000E+00	1.950E-11	3.630E-11
BREAST	3.280E-14	1.519E-11	6.468E-11	6.010E-16	-1.000E+00	2.940E-11	4.680E-11
LUNGS	2.860E-14	1.446E-11	6.156E-11	5.720E-16	-1.000E+00	8.200E-10	4.530E-11
RED MARR	2.770E-14	1.466E-11	6.242E-11	5.800E-16	-1.000E+00	2.720E-11	4.300E-11
BONE SUR	4.870E-14	2.161E-11	9.202E-11	8.550E-16	-1.000E+00	2.520E-11	4.070E-11
THYROID	2.930E-14	1.502E-11	6.393E-11	5.940E-16	-1.000E+00	4.860E-08	9.100E-08
REMAINDER	2.730E-14	1.418E-11	6.038E-11	5.610E-16	-1.000E+00	5.000E-11	1.550E-10
EFFECTIVE	2.940E-14	1.509E-11	6.425E-11	5.970E-16	-1.000E+00	1.580E-09	2.800E-09
SKIN(FGR)	5.830E-14	1.150E-10	4.897E-10	4.550E-15	-1.000E+00	0.000E+00	0.000E+00
I-134							
GONADS	1.270E-13	1.200E-11	1.202E-11	2.640E-15	-1.000E+00	4.250E-12	1.100E-11
BREAST	1.440E-13	1.145E-11	1.147E-11	2.520E-15	-1.000E+00	6.170E-12	1.170E-11
LUNGS	1.270E-13	1.100E-11	1.102E-11	2.420E-15	-1.000E+00	1.430E-10	1.260E-11
RED MARR	1.250E-13	1.127E-11	1.129E-11	2.480E-15	-1.000E+00	6.080E-12	1.090E-11
BONE SUR	1.960E-13	1.568E-11	1.571E-11	3.450E-15	-1.000E+00	5.310E-12	9.320E-12
THYROID	1.300E-13	1.127E-11	1.129E-11	2.480E-15	-1.000E+00	2.880E-10	6.210E-10
REMAINDER	1.220E-13	1.091E-11	1.093E-11	2.400E-15	-1.000E+00	2.270E-11	1.340E-10
EFFECTIVE	1.300E-13	1.150E-11	1.152E-11	2.530E-15	-1.000E+00	3.550E-11	6.660E-11
SKIN(FGR)	1.870E-13	4.477E-11	4.485E-11	9.850E-15	-1.000E+00	0.000E+00	0.000E+00
I-135							
GONADS	7.770E-14	3.113E-11	5.489E-11	1.599E-15	-1.000E+00	1.700E-11	3.610E-11
BREAST	8.790E-14	2.971E-11	5.240E-11	1.526E-15	-1.000E+00	2.340E-11	3.850E-11
LUNGS	7.840E-14	2.886E-11	5.089E-11	1.482E-15	-1.000E+00	4.410E-10	3.750E-11
RED MARR	7.760E-14	2.965E-11	5.228E-11	1.523E-15	-1.000E+00	2.240E-11	3.650E-11
BONE SUR	1.130E-13	3.983E-11	7.024E-11	2.046E-15	-1.000E+00	2.010E-11	3.360E-11
THYROID	8.010E-14	2.852E-11	5.030E-11	1.465E-15	-1.000E+00	8.460E-09	1.790E-08
REMAINDER	7.570E-14	2.883E-11	5.084E-11	1.481E-15	-1.000E+00	4.700E-11	1.540E-10
EFFECTIVE	7.980E-14	2.989E-11	5.271E-11	1.535E-15	-1.000E+00	3.320E-10	6.080E-10
SKIN(FGR)	1.110E-13	9.826E-11	1.733E-10	5.047E-15	-1.000E+00	0.000E+00	0.000E+00
Xe-133							
GONADS	1.610E-15	1.465E-12	2.052E-11	5.200E-17	-1.000E+00	0.000E+00	0.000E+00
BREAST	1.960E-15	1.505E-12	2.107E-11	5.340E-17	-1.000E+00	0.000E+00	0.000E+00
LUNGS	1.320E-15	1.045E-12	1.464E-11	3.710E-17	-1.000E+00	0.000E+00	0.000E+00
RED MARR	1.070E-15	8.791E-13	1.231E-11	3.120E-17	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	5.130E-15	4.254E-12	5.958E-11	1.510E-16	-1.000E+00	0.000E+00	0.000E+00
THYROID	1.510E-15	1.181E-12	1.653E-11	4.190E-17	-1.000E+00	0.000E+00	0.000E+00
REMAINDER	1.240E-15	1.042E-12	1.460E-11	3.700E-17	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.560E-15	1.299E-12	1.819E-11	4.610E-17	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	4.970E-15	1.953E-12	2.734E-11	6.930E-17	-1.000E+00	0.000E+00	0.000E+00
Xe-135							
GONADS	1.170E-14	5.455E-12	1.194E-11	2.530E-16	-1.000E+00	0.000E+00	0.000E+00
BREAST	1.330E-14	5.325E-12	1.166E-11	2.470E-16	-1.000E+00	0.000E+00	0.000E+00
LUNGS	1.130E-14	4.959E-12	1.086E-11	2.300E-16	-1.000E+00	0.000E+00	0.000E+00
RED MARR	1.070E-14	4.959E-12	1.086E-11	2.300E-16	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	2.570E-14	9.120E-12	1.997E-11	4.230E-16	-1.000E+00	0.000E+00	0.000E+00
THYROID	1.180E-14	5.023E-12	1.100E-11	2.330E-16	-1.000E+00	0.000E+00	0.000E+00

REMAINDER	1.080E-14	4.829E-12	1.058E-11	2.240E-16	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.190E-14	5.217E-12	1.142E-11	2.420E-16	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	3.120E-14	4.506E-11	9.867E-11	2.090E-15	-1.000E+00	0.000E+00	0.000E+00
Cs-134							
GONADS	7.400E-14	4.607E-11	9.646E-10	1.600E-15	-1.000E+00	1.300E-08	2.060E-08
BREAST	8.430E-14	4.406E-11	9.224E-10	1.530E-15	-1.000E+00	1.080E-08	1.720E-08
LUNGS	7.370E-14	4.204E-11	8.802E-10	1.460E-15	-1.000E+00	1.180E-08	1.760E-08
RED MARR	7.190E-14	4.262E-11	8.922E-10	1.480E-15	-1.000E+00	1.180E-08	1.870E-08
BONE SUR	1.200E-13	6.105E-11	1.278E-09	2.120E-15	-1.000E+00	1.100E-08	1.740E-08
THYROID	7.570E-14	4.377E-11	9.163E-10	1.520E-15	-1.000E+00	1.110E-08	1.760E-08
REMAINDER	7.060E-14	4.147E-11	8.681E-10	1.440E-15	-1.000E+00	1.390E-08	2.210E-08
EFFECTIVE	7.570E-14	4.377E-11	9.163E-10	1.520E-15	-1.000E+00	1.250E-08	1.980E-08
SKIN(FGR)	9.450E-14	6.249E-11	1.308E-09	2.170E-15	-1.000E+00	0.000E+00	0.000E+00
Cs-136							
GONADS	1.040E-13	6.223E-11	1.102E-09	2.180E-15	-1.000E+00	1.880E-09	3.040E-09
BREAST	1.180E-13	5.966E-11	1.056E-09	2.090E-15	-1.000E+00	1.670E-09	2.650E-09
LUNGS	1.040E-13	5.710E-11	1.011E-09	2.000E-15	-1.000E+00	2.320E-09	2.620E-09
RED MARR	1.010E-13	5.824E-11	1.031E-09	2.040E-15	-1.000E+00	1.860E-09	2.950E-09
BONE SUR	1.660E-13	8.422E-11	1.491E-09	2.950E-15	-1.000E+00	1.700E-09	2.710E-09
THYROID	1.070E-13	5.852E-11	1.036E-09	2.050E-15	-1.000E+00	1.730E-09	2.740E-09
REMAINDER	9.950E-14	5.652E-11	1.001E-09	1.980E-15	-1.000E+00	2.190E-09	3.520E-09
EFFECTIVE	1.060E-13	5.966E-11	1.056E-09	2.090E-15	-1.000E+00	1.980E-09	3.040E-09
SKIN(FGR)	1.250E-13	7.251E-11	1.284E-09	2.540E-15	-1.000E+00	0.000E+00	0.000E+00
Cs-137							
GONADS	7.960E-18	1.669E-11	3.530E-10	5.840E-16	-1.000E+00	8.760E-09	1.390E-08
BREAST	9.670E-18	1.596E-11	3.376E-10	5.585E-16	-1.000E+00	7.840E-09	1.240E-08
LUNGS	6.680E-18	1.517E-11	3.209E-10	5.309E-16	-1.000E+00	8.820E-09	1.270E-08
RED MARR	5.700E-18	1.542E-11	3.260E-10	5.394E-16	-1.000E+00	8.300E-09	1.320E-08
BONE SUR	2.290E-17	2.238E-11	4.734E-10	7.832E-16	-1.000E+00	7.940E-09	1.260E-08
THYROID	7.550E-18	1.588E-11	3.358E-10	5.556E-16	-1.000E+00	7.930E-09	1.260E-08
REMAINDER	6.340E-18	1.490E-11	3.152E-10	5.215E-16	-1.000E+00	9.120E-09	1.450E-08
EFFECTIVE	7.740E-18	1.585E-11	3.353E-10	5.546E-16	-1.000E+00	8.630E-09	1.350E-08
SKIN(FGR)	8.630E-15	5.253E-11	1.110E-09	1.836E-15	-1.000E+00	0.000E+00	0.000E+00
Ba-139							
GONADS	2.130E-15	3.368E-13	3.429E-13	4.790E-17	-1.000E+00	2.560E-12	1.560E-12
BREAST	2.450E-15	3.297E-13	3.357E-13	4.690E-17	-1.000E+00	2.460E-12	5.170E-13
LUNGS	2.030E-15	3.002E-13	3.057E-13	4.270E-17	-1.000E+00	2.530E-10	3.890E-13
RED MARR	1.870E-15	2.932E-13	2.985E-13	4.170E-17	-1.000E+00	3.410E-12	8.590E-13
BONE SUR	5.290E-15	6.841E-13	6.965E-13	9.730E-17	-1.000E+00	2.490E-12	4.380E-13
THYROID	2.130E-15	3.044E-13	3.100E-13	4.330E-17	-1.000E+00	2.400E-12	2.660E-13
REMAINDER	1.920E-15	2.932E-13	2.985E-13	4.170E-17	-1.000E+00	4.820E-11	3.570E-10
EFFECTIVE	2.170E-15	3.227E-13	3.286E-13	4.590E-17	-1.000E+00	4.640E-11	1.080E-10
SKIN(FGR)	6.160E-14	7.241E-11	7.373E-11	1.030E-14	-1.000E+00	0.000E+00	0.000E+00
Ba-140							
GONADS	8.410E-15	5.451E-12	9.607E-11	1.910E-16	-1.000E+00	4.300E-10	9.960E-10
BREAST	9.640E-15	5.280E-12	9.305E-11	1.850E-16	-1.000E+00	2.870E-10	1.590E-10
LUNGS	8.270E-15	4.852E-12	8.550E-11	1.700E-16	-1.000E+00	1.660E-09	6.630E-11
RED MARR	7.930E-15	4.880E-12	8.601E-11	1.710E-16	-1.000E+00	1.290E-09	4.390E-10
BONE SUR	1.550E-14	8.020E-12	1.413E-10	2.810E-16	-1.000E+00	2.410E-09	5.530E-10
THYROID	8.530E-15	5.109E-12	9.003E-11	1.790E-16	-1.000E+00	2.560E-10	5.250E-11
REMAINDER	7.890E-15	4.766E-12	8.399E-11	1.670E-16	-1.000E+00	1.410E-09	7.370E-09
EFFECTIVE	8.580E-15	5.137E-12	9.053E-11	1.800E-16	-1.000E+00	1.010E-09	2.560E-09
SKIN(FGR)	2.520E-14	5.565E-11	9.808E-10	1.950E-15	-1.000E+00	0.000E+00	0.000E+00
La-140							
GONADS	1.140E-13	6.027E-11	4.425E-10	2.240E-15	-1.000E+00	4.540E-10	1.340E-09
BREAST	1.290E-13	5.758E-11	4.228E-10	2.140E-15	-1.000E+00	1.450E-10	1.800E-10
LUNGS	1.150E-13	5.596E-11	4.109E-10	2.080E-15	-1.000E+00	4.210E-09	4.010E-11
RED MARR	1.140E-13	5.731E-11	4.208E-10	2.130E-15	-1.000E+00	2.140E-10	2.810E-10
BONE SUR	1.690E-13	7.776E-11	5.709E-10	2.890E-15	-1.000E+00	1.410E-10	9.770E-11
THYROID	1.180E-13	5.462E-11	4.010E-10	2.030E-15	-1.000E+00	6.870E-11	6.400E-12
REMAINDER	1.110E-13	5.569E-11	4.089E-10	2.070E-15	-1.000E+00	2.120E-09	6.260E-09
EFFECTIVE	1.170E-13	5.812E-11	4.267E-10	2.160E-15	-1.000E+00	1.310E-09	2.280E-09
SKIN(FGR)	1.660E-13	2.217E-10	1.628E-09	8.240E-15	-1.000E+00	0.000E+00	0.000E+00
La-141							
GONADS	2.330E-15	7.315E-13	9.675E-13	4.740E-17	-1.000E+00	1.010E-11	3.770E-12
BREAST	2.640E-15	7.007E-13	9.267E-13	4.540E-17	-1.000E+00	9.840E-12	7.070E-13
LUNGS	2.340E-15	6.713E-13	8.879E-13	4.350E-17	-1.000E+00	6.460E-10	2.720E-13
RED MARR	2.310E-15	6.852E-13	9.063E-13	4.440E-17	-1.000E+00	2.930E-11	1.070E-12
BONE SUR	3.490E-15	9.923E-13	1.312E-12	6.430E-17	-1.000E+00	1.200E-10	6.060E-13
THYROID	2.390E-15	6.590E-13	8.716E-13	4.270E-17	-1.000E+00	9.400E-12	5.290E-14
REMAINDER	2.260E-15	6.682E-13	8.838E-13	4.330E-17	-1.000E+00	2.280E-10	1.240E-09
EFFECTIVE	2.390E-15	7.007E-13	9.267E-13	4.540E-17	-1.000E+00	1.570E-10	3.740E-10
SKIN(FGR)	6.580E-14	1.667E-10	2.204E-10	1.080E-14	-1.000E+00	0.000E+00	0.000E+00

La-142							
GONADS	1.400E-13	1.978E-11	2.034E-11	2.540E-15	-1.000E+00	1.660E-11	6.990E-11
BREAST	1.570E-13	1.885E-11	1.938E-11	2.420E-15	-1.000E+00	1.130E-11	1.540E-11
LUNGS	1.420E-13	1.846E-11	1.898E-11	2.370E-15	-1.000E+00	3.010E-10	8.400E-12
RED MARR	1.420E-13	1.900E-11	1.954E-11	2.440E-15	-1.000E+00	1.360E-11	1.930E-11
BONE SUR	1.950E-13	2.484E-11	2.554E-11	3.190E-15	-1.000E+00	1.110E-11	7.400E-12
THYROID	1.450E-13	1.768E-11	1.818E-11	2.270E-15	-1.000E+00	8.740E-12	1.160E-12
REMAINDER	1.380E-13	1.853E-11	1.906E-11	2.380E-15	-1.000E+00	8.070E-11	5.200E-10
EFFECTIVE	1.440E-13	1.916E-11	1.970E-11	2.460E-15	-1.000E+00	6.840E-11	1.790E-10
SKIN(FGR)	2.160E-13	9.111E-11	9.368E-11	1.170E-14	-1.000E+00	0.000E+00	0.000E+00
Ce-141							
GONADS	3.380E-15	2.213E-12	4.332E-11	7.710E-17	-1.000E+00	5.540E-11	1.080E-10
BREAST	3.930E-15	2.170E-12	4.247E-11	7.560E-17	-1.000E+00	4.460E-11	1.110E-11
LUNGS	3.170E-15	1.951E-12	3.820E-11	6.800E-17	-1.000E+00	1.670E-08	1.430E-12
RED MARR	2.830E-15	1.860E-12	3.641E-11	6.480E-17	-1.000E+00	8.960E-11	3.390E-11
BONE SUR	9.410E-15	5.166E-12	1.011E-10	1.800E-16	-1.000E+00	2.540E-10	2.300E-11
THYROID	3.350E-15	2.003E-12	3.922E-11	6.980E-17	-1.000E+00	2.550E-11	1.800E-13
REMAINDER	2.980E-15	1.894E-12	3.708E-11	6.600E-17	-1.000E+00	1.260E-09	2.500E-09
EFFECTIVE	3.430E-15	2.118E-12	4.146E-11	7.380E-17	-1.000E+00	2.420E-09	7.830E-10
SKIN(FGR)	1.020E-14	3.788E-12	7.416E-11	1.320E-16	-1.000E+00	0.000E+00	0.000E+00
Ce-143							
GONADS	1.280E-14	7.900E-12	4.958E-11	2.980E-16	-1.000E+00	7.530E-11	2.120E-10
BREAST	1.470E-14	7.688E-12	4.825E-11	2.900E-16	-1.000E+00	1.660E-11	2.320E-11
LUNGS	1.230E-14	6.893E-12	4.325E-11	2.600E-16	-1.000E+00	3.880E-09	3.820E-12
RED MARR	1.170E-14	6.787E-12	4.259E-11	2.560E-16	-1.000E+00	2.960E-11	5.070E-11
BONE SUR	2.520E-14	1.323E-11	8.302E-11	4.990E-16	-1.000E+00	1.640E-11	1.610E-11
THYROID	1.280E-14	7.211E-12	4.525E-11	2.720E-16	-1.000E+00	6.230E-12	4.350E-13
REMAINDER	1.170E-14	6.734E-12	4.226E-11	2.540E-16	-1.000E+00	1.420E-09	3.890E-09
EFFECTIVE	1.290E-14	7.396E-12	4.642E-11	2.790E-16	-1.000E+00	9.160E-10	1.230E-09
SKIN(FGR)	3.960E-14	1.058E-10	6.638E-10	3.990E-15	-1.000E+00	0.000E+00	0.000E+00
Ce-144							
GONADS	8.530E-16	6.328E-13	1.319E-11	6.088E-17	-1.000E+00	2.390E-10	6.987E-11
BREAST	1.010E-15	6.274E-13	1.307E-11	5.922E-17	-1.000E+00	3.480E-10	1.223E-11
LUNGS	7.690E-16	5.228E-13	1.089E-11	5.362E-17	-1.000E+00	7.910E-07	6.551E-12
RED MARR	6.680E-16	4.755E-13	9.907E-12	5.247E-17	-1.000E+00	2.880E-09	8.923E-11
BONE SUR	2.490E-15	1.646E-12	3.429E-11	1.127E-16	-1.000E+00	4.720E-09	1.280E-10
THYROID	8.330E-16	5.529E-13	1.152E-11	5.418E-17	-1.000E+00	2.920E-10	5.154E-12
REMAINDER	7.230E-16	5.086E-13	1.060E-11	5.283E-17	-1.000E+00	1.910E-08	1.890E-08
EFFECTIVE	8.530E-16	5.909E-13	1.231E-11	5.766E-17	-1.000E+00	1.010E-07	5.711E-09
SKIN(FGR)	2.930E-15	7.648E-13	1.594E-11	1.250E-14	-1.000E+00	0.000E+00	0.000E+00
Pr-143							
GONADS	2.130E-17	2.264E-14	4.032E-13	7.930E-19	-1.000E+00	4.370E-18	8.990E-18
BREAST	2.550E-17	2.330E-14	4.149E-13	8.160E-19	-1.000E+00	2.220E-18	1.090E-18
LUNGS	1.860E-17	1.642E-14	2.923E-13	5.750E-19	-1.000E+00	1.330E-08	1.910E-19
RED MARR	1.620E-17	1.493E-14	2.659E-13	5.230E-19	-1.000E+00	1.480E-11	1.030E-12
BONE SUR	5.930E-17	5.454E-14	9.711E-13	1.910E-18	-1.000E+00	1.490E-11	1.030E-12
THYROID	2.050E-17	1.802E-14	3.208E-13	6.310E-19	-1.000E+00	1.680E-18	2.660E-20
REMAINDER	1.760E-17	1.642E-14	2.923E-13	5.750E-19	-1.000E+00	1.970E-09	4.220E-09
EFFECTIVE	2.100E-17	2.002E-14	3.564E-13	7.010E-19	-1.000E+00	2.190E-09	1.270E-09
SKIN(FGR)	1.760E-14	5.711E-11	1.017E-09	2.000E-15	-1.000E+00	0.000E+00	0.000E+00
Nd-147							
GONADS	6.130E-15	4.218E-12	7.235E-11	1.480E-16	-1.000E+00	8.410E-11	1.790E-10
BREAST	7.120E-15	4.132E-12	7.088E-11	1.450E-16	-1.000E+00	3.450E-11	1.870E-11
LUNGS	5.820E-15	3.648E-12	6.257E-11	1.280E-16	-1.000E+00	1.060E-08	2.440E-12
RED MARR	5.400E-15	3.505E-12	6.013E-11	1.230E-16	-1.000E+00	9.190E-11	5.050E-11
BONE SUR	1.320E-14	8.265E-12	1.418E-10	2.900E-16	-1.000E+00	3.260E-10	2.220E-11
THYROID	6.120E-15	3.876E-12	6.648E-11	1.360E-16	-1.000E+00	1.820E-11	2.640E-13
REMAINDER	5.530E-15	3.562E-12	6.111E-11	1.250E-16	-1.000E+00	1.760E-09	3.760E-09
EFFECTIVE	6.190E-15	3.961E-12	6.795E-11	1.390E-16	-1.000E+00	1.850E-09	1.180E-09
SKIN(FGR)	1.950E-14	3.135E-11	5.377E-10	1.100E-15	-1.000E+00	0.000E+00	0.000E+00
Np-239							
GONADS	7.530E-15	4.691E-12	4.380E-11	1.710E-16	-1.000E+00	7.450E-11	1.620E-10
BREAST	8.730E-15	4.636E-12	4.329E-11	1.690E-16	-1.000E+00	1.630E-11	1.720E-11
LUNGS	7.180E-15	4.115E-12	3.842E-11	1.500E-16	-1.000E+00	2.360E-09	2.400E-12
RED MARR	6.500E-15	4.005E-12	3.740E-11	1.460E-16	-1.000E+00	2.080E-10	4.660E-11
BONE SUR	2.000E-14	1.001E-11	9.349E-11	3.650E-16	-1.000E+00	2.030E-09	3.590E-11
THYROID	7.520E-15	4.197E-12	3.919E-11	1.530E-16	-1.000E+00	7.620E-12	2.070E-13
REMAINDER	6.760E-15	4.005E-12	3.740E-11	1.460E-16	-1.000E+00	9.590E-10	2.770E-09
EFFECTIVE	7.690E-15	4.471E-12	4.175E-11	1.630E-16	-1.000E+00	6.780E-10	8.820E-10
SKIN(FGR)	1.600E-14	7.215E-12	6.737E-11	2.630E-16	-1.000E+00	0.000E+00	0.000E+00
Pu-238							
GONADS	6.560E-18	4.291E-14	9.011E-13	1.490E-18	-1.000E+00	2.800E-05	2.330E-09
BREAST	1.270E-17	5.558E-14	1.167E-12	1.930E-18	-1.000E+00	1.000E-09	1.800E-13

LUNGS	1.060E-18	2.267E-15	4.759E-14	7.870E-20	-1.000E+00	1.840E-05	8.640E-14
RED MARR	1.680E-18	5.587E-15	1.173E-13	1.940E-19	-1.000E+00	1.520E-04	1.270E-08
BONE SUR	9.300E-18	3.514E-14	7.378E-13	1.220E-18	-1.000E+00	1.900E-03	1.580E-07
THYROID	4.010E-18	9.792E-15	2.056E-13	3.400E-19	-1.000E+00	9.620E-10	7.990E-14
REMAINDER	1.990E-18	9.216E-15	1.935E-13	3.200E-19	-1.000E+00	7.020E-05	2.180E-08
EFFECTIVE	4.880E-18	2.413E-14	5.068E-13	8.380E-19	-1.000E+00	1.060E-04	1.340E-08
SKIN(FGR)	4.090E-17	2.776E-13	5.830E-12	9.640E-18	-1.000E+00	0.000E+00	0.000E+00
Pu-239							
GONADS	4.840E-18	1.768E-14	3.713E-13	6.140E-19	-1.000E+00	3.180E-05	2.640E-09
BREAST	7.550E-18	2.238E-14	4.699E-13	7.770E-19	-1.000E+00	9.220E-10	1.210E-13
LUNGS	2.650E-18	2.267E-15	4.760E-14	7.870E-20	-1.000E+00	1.730E-05	7.890E-14
RED MARR	2.670E-18	3.456E-15	7.258E-14	1.200E-19	-1.000E+00	1.690E-04	1.410E-08
BONE SUR	9.470E-18	1.673E-14	3.514E-13	5.810E-19	-1.000E+00	2.110E-03	1.760E-07
THYROID	3.880E-18	5.126E-15	1.077E-13	1.780E-19	-1.000E+00	9.030E-10	7.500E-14
REMAINDER	2.860E-18	4.838E-15	1.016E-13	1.680E-19	-1.000E+00	7.560E-05	2.120E-08
EFFECTIVE	4.240E-18	1.057E-14	2.220E-13	3.670E-19	-1.000E+00	1.160E-05	1.400E-08
SKIN(FGR)	1.860E-17	1.057E-13	2.220E-12	3.670E-18	-1.000E+00	0.000E+00	0.000E+00
Pu-240							
GONADS	6.360E-18	4.118E-14	8.649E-13	1.430E-18	-1.000E+00	3.180E-05	2.640E-09
BREAST	1.230E-17	5.328E-14	1.119E-12	1.850E-18	-1.000E+00	9.510E-10	1.730E-13
LUNGS	1.090E-18	2.249E-15	4.723E-14	7.810E-20	-1.000E+00	1.730E-05	8.220E-14
RED MARR	1.650E-18	5.386E-15	1.131E-13	1.870E-19	-1.000E+00	1.690E-04	1.410E-08
BONE SUR	9.260E-18	3.398E-14	7.137E-13	1.180E-18	-1.000E+00	2.110E-03	1.760E-07
THYROID	3.920E-18	9.446E-15	1.984E-13	3.280E-19	-1.000E+00	9.050E-10	7.510E-14
REMAINDER	1.960E-18	8.870E-15	1.863E-13	3.080E-19	-1.000E+00	7.560E-05	2.130E-08
EFFECTIVE	4.750E-18	2.313E-14	4.857E-13	8.030E-19	-1.000E+00	1.160E-04	1.400E-08
SKIN(FGR)	3.920E-17	2.644E-13	5.552E-12	9.180E-18	-1.000E+00	0.000E+00	0.000E+00
Pu-241							
GONADS	7.190E-20	6.653E-17	1.396E-15	2.310E-21	-1.000E+00	6.820E-07	5.660E-11
BREAST	8.670E-20	7.229E-17	1.517E-15	2.510E-21	-1.000E+00	3.060E-11	2.790E-15
LUNGS	6.480E-20	4.090E-17	8.584E-16	1.420E-21	-1.000E+00	7.420E-09	4.480E-15
RED MARR	5.630E-20	4.003E-17	8.403E-16	1.390E-21	-1.000E+00	3.360E-06	2.780E-10
BONE SUR	2.190E-19	1.385E-16	2.908E-15	4.810E-21	-1.000E+00	4.200E-05	3.480E-09
THYROID	6.980E-20	4.522E-17	9.491E-16	1.570E-21	-1.000E+00	1.240E-11	1.010E-15
REMAINDER	6.090E-20	4.291E-17	9.007E-16	1.490E-21	-1.000E+00	1.310E-06	1.850E-10
EFFECTIVE	7.250E-20	5.558E-17	1.167E-15	1.930E-21	-1.000E+00	2.230E-06	2.070E-10
SKIN(FGR)	1.170E-19	2.033E-16	4.268E-15	7.060E-21	-1.000E+00	0.000E+00	0.000E+00
Am-241							
GONADS	8.580E-16	9.360E-13	1.966E-11	3.250E-17	-1.000E+00	3.250E-05	2.700E-07
BREAST	1.070E-15	1.014E-12	2.129E-11	3.520E-17	-1.000E+00	2.670E-09	2.620E-11
LUNGS	6.740E-16	5.789E-13	1.216E-11	2.010E-17	-1.000E+00	1.840E-05	3.360E-11
RED MARR	5.210E-16	4.838E-13	1.016E-11	1.680E-17	-1.000E+00	1.740E-04	1.450E-06
BONE SUR	2.870E-15	2.678E-12	5.625E-11	9.300E-17	-1.000E+00	2.170E-03	1.810E-05
THYROID	7.830E-16	6.365E-13	1.337E-11	2.210E-17	-1.000E+00	1.600E-09	1.320E-11
REMAINDER	6.340E-16	5.933E-13	1.246E-11	2.060E-17	-1.000E+00	7.820E-05	6.660E-07
EFFECTIVE	8.180E-16	7.920E-13	1.663E-11	2.750E-17	-1.000E+00	1.200E-04	9.840E-07
SKIN(FGR)	1.280E-15	2.396E-12	5.032E-11	8.320E-17	-1.000E+00	0.000E+00	0.000E+00
Cm-242							
GONADS	7.830E-18	4.893E-14	1.013E-12	1.700E-18	-1.000E+00	5.700E-07	5.200E-09
BREAST	1.480E-17	6.159E-14	1.275E-12	2.140E-18	-1.000E+00	9.440E-10	8.950E-12
LUNGS	1.130E-18	3.022E-15	6.257E-14	1.050E-19	-1.000E+00	1.550E-05	8.840E-12
RED MARR	1.890E-18	6.562E-15	1.359E-13	2.280E-19	-1.000E+00	3.900E-06	3.570E-08
BONE SUR	1.060E-17	4.231E-14	8.759E-13	1.470E-18	-1.000E+00	4.870E-05	4.460E-07
THYROID	4.910E-18	1.261E-14	2.610E-13	4.380E-19	-1.000E+00	9.410E-10	8.820E-12
REMAINDER	2.270E-18	1.079E-14	2.235E-13	3.750E-19	-1.000E+00	2.450E-06	4.020E-08
EFFECTIVE	5.690E-18	2.751E-14	5.697E-13	9.560E-19	-1.000E+00	4.670E-06	3.100E-08
SKIN(FGR)	4.290E-17	2.700E-13	5.589E-12	9.380E-18	-1.000E+00	0.000E+00	0.000E+00
Cm-244							
GONADS	6.900E-18	4.522E-14	9.492E-13	1.570E-18	-1.000E+00	1.590E-05	1.330E-07
BREAST	1.330E-17	5.702E-14	1.197E-12	1.980E-18	-1.000E+00	1.040E-09	8.820E-12
LUNGS	7.080E-19	2.592E-15	5.441E-14	9.000E-20	-1.000E+00	1.930E-05	8.810E-12
RED MARR	1.460E-18	5.875E-15	1.233E-13	2.040E-19	-1.000E+00	9.380E-05	7.820E-07
BONE SUR	8.820E-18	3.859E-14	8.101E-13	1.340E-18	-1.000E+00	1.170E-03	9.770E-06
THYROID	4.190E-18	1.146E-14	2.406E-13	3.980E-19	-1.000E+00	1.010E-09	8.440E-12
REMAINDER	1.810E-18	9.821E-15	2.062E-13	3.410E-19	-1.000E+00	4.780E-05	4.150E-07
EFFECTIVE	4.910E-18	2.529E-14	5.308E-13	8.780E-19	-1.000E+00	6.700E-05	5.450E-07
SKIN(FGR)	3.910E-17	2.506E-13	5.260E-12	8.700E-18	-1.000E+00	0.000E+00	0.000E+00
I-130							
GONADS	1.010E-13	2.867E-11	5.828E-10	9.970E-16	-1.000E+00	2.810E-11	1.040E-09
BREAST	1.160E-13	2.737E-11	5.565E-10	9.520E-16	-1.000E+00	4.870E-11	1.790E-10
LUNGS	1.010E-13	2.617E-11	5.319E-10	9.100E-16	-1.000E+00	6.030E-10	8.530E-11
RED MARR	9.820E-14	2.671E-11	5.430E-10	9.290E-16	-1.000E+00	4.550E-11	2.600E-10
BONE SUR	1.680E-13	3.795E-11	7.716E-10	1.320E-15	-1.000E+00	4.030E-11	1.250E-10

THYROID	1.040E-13	2.720E-11	5.530E-10	9.460E-16	-1.000E+00	1.990E-08	6.310E-11
REMAINDER	9.660E-14	2.585E-11	5.255E-10	8.990E-16	-1.000E+00	8.020E-11	1.580E-09
EFFECTIVE	1.040E-13	2.732E-11	5.553E-10	9.500E-16	-1.000E+00	7.140E-10	8.090E-10
SKIN(FGR)	1.360E-13	3.278E-11	6.664E-10	1.140E-15	-1.000E+00	0.000E+00	0.000E+00
Kr-83m							
GONADS	1.710E-18	7.056E-11	1.480E-09	2.450E-15	-1.000E+00	0.000E+00	3.190E-09
BREAST	5.050E-18	6.739E-11	1.413E-09	2.340E-15	-1.000E+00	0.000E+00	1.100E-09
LUNGS	1.640E-19	6.537E-11	1.371E-09	2.270E-15	-1.000E+00	0.000E+00	8.770E-10
RED MARR	3.830E-19	6.710E-11	1.407E-09	2.330E-15	-1.000E+00	0.000E+00	1.320E-09
BONE SUR	2.250E-18	8.956E-11	1.879E-09	3.110E-15	-1.000E+00	0.000E+00	9.390E-10
THYROID	6.430E-19	6.480E-11	1.359E-09	2.250E-15	-1.000E+00	0.000E+00	7.880E-10
REMAINDER	5.300E-19	6.508E-11	1.365E-09	2.260E-15	-1.000E+00	0.000E+00	4.970E-09
EFFECTIVE	1.500E-18	6.768E-11	1.419E-09	2.350E-15	-1.000E+00	0.000E+00	2.770E-09
SKIN(FGR)	3.560E-17	7.948E-11	1.667E-09	2.760E-15	-1.000E+00	0.000E+00	0.000E+00
Xe-138							
GONADS	5.590E-14	8.121E-14	1.704E-12	2.820E-18	-1.000E+00	0.000E+00	0.000E+00
BREAST	6.320E-14	7.891E-14	1.656E-12	2.740E-18	-1.000E+00	0.000E+00	0.000E+00
LUNGS	5.660E-14	7.056E-14	1.481E-12	2.450E-18	-1.000E+00	0.000E+00	0.000E+00
RED MARR	5.600E-14	6.998E-14	1.469E-12	2.430E-18	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	8.460E-14	1.287E-13	2.702E-12	4.470E-18	-1.000E+00	0.000E+00	0.000E+00
THYROID	5.770E-14	7.459E-14	1.565E-12	2.590E-18	-1.000E+00	0.000E+00	0.000E+00
REMAINDER	5.490E-14	6.941E-14	1.457E-12	2.410E-18	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	5.770E-14	7.603E-14	1.596E-12	2.640E-18	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	1.070E-13	2.304E-11	4.835E-10	8.000E-16	-1.000E+00	0.000E+00	0.000E+00
Xe-131m							
GONADS	4.570E-16	2.594E-12	3.653E-12	1.570E-16	-1.000E+00	0.000E+00	0.000E+00
BREAST	6.020E-16	2.527E-12	3.560E-12	1.530E-16	-1.000E+00	0.000E+00	0.000E+00
LUNGS	2.670E-16	2.379E-12	3.351E-12	1.440E-16	-1.000E+00	0.000E+00	0.000E+00
RED MARR	2.270E-16	2.346E-12	3.304E-12	1.420E-16	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	1.060E-15	5.286E-12	7.446E-12	3.200E-16	-1.000E+00	0.000E+00	0.000E+00
THYROID	3.910E-16	2.395E-12	3.374E-12	1.450E-16	-1.000E+00	0.000E+00	0.000E+00
REMAINDER	2.710E-16	2.313E-12	3.257E-12	1.400E-16	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	3.890E-16	2.511E-12	3.537E-12	1.520E-16	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	4.820E-15	2.247E-11	3.164E-11	1.360E-15	-1.000E+00	0.000E+00	0.000E+00
Xe-133m							
GONADS	1.420E-15	4.962E-12	5.026E-12	7.610E-16	-1.000E+00	0.000E+00	0.000E+00
BREAST	1.700E-15	4.740E-12	4.802E-12	7.270E-16	-1.000E+00	0.000E+00	0.000E+00
LUNGS	1.190E-15	4.603E-12	4.663E-12	7.060E-16	-1.000E+00	0.000E+00	0.000E+00
RED MARR	1.100E-15	4.708E-12	4.769E-12	7.220E-16	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	3.230E-15	6.514E-12	6.598E-12	9.990E-16	-1.000E+00	0.000E+00	0.000E+00
THYROID	1.360E-15	4.473E-12	4.531E-12	6.860E-16	-1.000E+00	0.000E+00	0.000E+00
REMAINDER	1.150E-15	4.590E-12	4.650E-12	7.040E-16	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.370E-15	4.773E-12	4.835E-12	7.320E-16	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	1.040E-14	8.802E-11	8.916E-11	1.350E-14	-1.000E+00	0.000E+00	0.000E+00
Xe-135m							
GONADS	2.000E-14	2.278E-11	2.655E-11	1.800E-15	-1.000E+00	0.000E+00	0.000E+00
BREAST	2.290E-14	2.177E-11	2.537E-11	1.720E-15	-1.000E+00	0.000E+00	0.000E+00
LUNGS	1.980E-14	2.139E-11	2.493E-11	1.690E-15	-1.000E+00	0.000E+00	0.000E+00
RED MARR	1.910E-14	2.190E-11	2.552E-11	1.730E-15	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	3.500E-14	2.886E-11	3.363E-11	2.280E-15	-1.000E+00	0.000E+00	0.000E+00
THYROID	2.040E-14	2.012E-11	2.345E-11	1.590E-15	-1.000E+00	0.000E+00	0.000E+00
REMAINDER	1.890E-14	2.139E-11	2.493E-11	1.690E-15	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	2.040E-14	2.202E-11	2.567E-11	1.740E-15	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	2.970E-14	5.607E-11	6.534E-11	4.430E-15	-1.000E+00	0.000E+00	0.000E+00
Cs-138							
GONADS	1.170E-13	2.788E-12	5.187E-11	9.740E-17	-1.000E+00	3.280E-12	2.150E-09
BREAST	1.330E-13	2.662E-12	4.953E-11	9.300E-17	-1.000E+00	4.020E-12	2.140E-09
LUNGS	1.190E-13	2.553E-12	4.750E-11	8.920E-17	-1.000E+00	1.590E-10	2.140E-09
RED MARR	1.180E-13	2.619E-12	4.873E-11	9.150E-17	-1.000E+00	3.950E-12	3.720E-09
BONE SUR	1.700E-13	3.635E-12	6.764E-11	1.270E-16	-1.000E+00	3.550E-12	6.860E-09
THYROID	1.210E-13	2.599E-12	4.836E-11	9.080E-17	-1.000E+00	3.570E-12	2.140E-09
REMAINDER	1.150E-13	2.542E-12	4.729E-11	8.880E-17	-1.000E+00	2.060E-11	2.330E-09
EFFECTIVE	1.210E-13	2.665E-12	4.958E-11	9.310E-17	-1.000E+00	2.740E-11	2.530E-09
SKIN(FGR)	2.170E-13	2.210E-10	4.111E-09	7.720E-15	-1.000E+00	0.000E+00	0.000E+00
Cs-134m							
GONADS	9.300E-16	7.155E-14	1.436E-12	2.490E-18	-1.000E+00	3.610E-12	8.050E-12
BREAST	1.120E-15	7.212E-14	1.447E-12	2.510E-18	-1.000E+00	3.390E-12	7.980E-12
LUNGS	7.840E-16	5.689E-14	1.142E-12	1.980E-18	-1.000E+00	6.400E-11	7.970E-12
RED MARR	6.810E-16	5.345E-14	1.073E-12	1.860E-18	-1.000E+00	3.760E-12	1.080E-10
BONE SUR	2.610E-15	1.560E-13	3.131E-12	5.430E-18	-1.000E+00	3.550E-12	1.610E-10
THYROID	8.880E-16	6.063E-14	1.217E-12	2.110E-18	-1.000E+00	3.340E-12	7.970E-12
REMAINDER	7.450E-16	5.603E-14	1.124E-12	1.950E-18	-1.000E+00	6.900E-12	8.250E-09
EFFECTIVE	9.050E-16	6.523E-14	1.309E-12	2.270E-18	-1.000E+00	1.180E-11	2.500E-09

SKIN(FGR)	2.880E-15	1.914E-10	3.841E-09	6.660E-15	-1.000E+00	0.000E+00	0.000E+00
Rb-88							
GONADS	3.260E-14	9.590E-15	2.014E-13	3.330E-19	-1.000E+00	1.310E-12	5.040E-11
BREAST	3.670E-14	1.008E-14	2.116E-13	3.500E-19	-1.000E+00	1.430E-12	5.040E-11
LUNGS	3.310E-14	6.307E-15	1.324E-13	2.190E-19	-1.000E+00	1.470E-10	5.040E-11
RED MARR	3.300E-14	5.558E-15	1.167E-13	1.930E-19	-1.000E+00	1.450E-12	6.450E-09
BONE SUR	4.620E-14	2.393E-14	5.025E-13	8.310E-19	-1.000E+00	1.470E-12	1.390E-08
THYROID	3.370E-14	7.171E-15	1.506E-13	2.490E-19	-1.000E+00	1.370E-12	5.040E-11
REMAINDER	3.210E-14	6.422E-15	1.348E-13	2.230E-19	-1.000E+00	1.380E-11	6.700E-09
EFFECTIVE	3.360E-14	8.179E-15	1.717E-13	2.840E-19	-1.000E+00	2.260E-11	3.230E-09
SKIN(FGR)	1.830E-13	4.032E-12	8.465E-11	1.400E-16	-1.000E+00	0.000E+00	0.000E+00
Rb-89							
GONADS	1.030E-13	2.155E-11	5.062E-11	1.026E-15	-1.000E+00	1.340E-12	2.520E-10
BREAST	1.170E-13	2.059E-11	4.838E-11	9.806E-16	-1.000E+00	1.730E-12	3.676E-11
LUNGS	1.040E-13	1.970E-11	4.626E-11	9.376E-16	-1.000E+00	6.800E-11	1.055E-11
RED MARR	1.040E-13	2.011E-11	4.722E-11	9.570E-16	-1.000E+00	2.020E-12	5.659E-11
BONE SUR	1.480E-13	2.852E-11	6.709E-11	1.360E-15	-1.000E+00	2.540E-12	2.070E-11
THYROID	1.070E-13	2.035E-11	4.782E-11	9.693E-16	-1.000E+00	1.610E-12	1.968E-12
REMAINDER	1.010E-13	1.948E-11	4.573E-11	9.268E-16	-1.000E+00	8.140E-12	2.557E-09
EFFECTIVE	1.060E-13	2.057E-11	4.832E-11	9.793E-16	-1.000E+00	1.160E-11	8.455E-10
SKIN(FGR)	1.870E-13	1.748E-10	3.987E-10	8.080E-15	-1.000E+00	0.000E+00	0.000E+00
Sb-124							
GONADS	8.890E-14	1.593E-11	1.830E-11	1.300E-15	-1.000E+00	1.040E-09	8.180E-11
BREAST	1.010E-13	1.520E-11	1.745E-11	1.240E-15	-1.000E+00	8.940E-10	1.700E-11
LUNGS	8.970E-14	1.483E-11	1.703E-11	1.210E-15	-1.000E+00	4.140E-08	7.220E-12
RED MARR	8.850E-14	1.520E-11	1.745E-11	1.240E-15	-1.000E+00	1.090E-09	2.290E-11
BONE SUR	1.340E-13	2.010E-11	2.308E-11	1.640E-15	-1.000E+00	1.240E-09	8.490E-12
THYROID	9.150E-14	1.446E-11	1.661E-11	1.180E-15	-1.000E+00	6.740E-10	1.300E-12
REMAINDER	8.660E-14	1.471E-11	1.689E-11	1.200E-15	-1.000E+00	4.180E-09	1.720E-09
EFFECTIVE	9.150E-14	1.532E-11	1.759E-11	1.250E-15	-1.000E+00	6.800E-09	5.430E-10
SKIN(FGR)	1.260E-13	2.280E-11	2.618E-11	1.860E-15	-1.000E+00	0.000E+00	0.000E+00
Sb-125							
GONADS	1.980E-14	1.586E-13	1.601E-12	5.750E-18	-1.000E+00	3.600E-10	1.430E-14
BREAST	2.270E-14	1.578E-13	1.593E-12	5.720E-18	-1.000E+00	4.160E-10	1.270E-14
LUNGS	1.950E-14	1.313E-13	1.326E-12	4.760E-18	-1.000E+00	2.170E-08	1.260E-14
RED MARR	1.870E-14	1.261E-13	1.273E-12	4.570E-18	-1.000E+00	5.350E-10	3.700E-13
BONE SUR	3.530E-14	3.228E-13	3.259E-12	1.170E-17	-1.000E+00	9.780E-10	3.670E-13
THYROID	2.010E-14	1.385E-13	1.398E-12	5.020E-18	-1.000E+00	3.240E-10	1.260E-14
REMAINDER	1.860E-14	1.291E-13	1.303E-12	4.680E-18	-1.000E+00	1.450E-09	9.680E-09
EFFECTIVE	2.020E-14	1.468E-13	1.482E-12	5.320E-18	-1.000E+00	3.300E-09	2.910E-09
SKIN(FGR)	2.650E-14	2.897E-10	2.924E-09	1.050E-14	-1.000E+00	0.000E+00	0.000E+00
Sb-126							
GONADS	1.350E-13	1.756E-13	3.546E-12	6.110E-18	-1.000E+00	1.320E-09	3.540E-12
BREAST	1.530E-13	1.713E-13	3.459E-12	5.960E-18	-1.000E+00	6.440E-10	5.540E-13
LUNGS	1.340E-13	1.526E-13	3.082E-12	5.310E-18	-1.000E+00	1.380E-08	2.020E-13
RED MARR	1.300E-13	1.521E-13	3.070E-12	5.290E-18	-1.000E+00	7.970E-10	6.590E-12
BONE SUR	2.220E-13	2.903E-13	5.862E-12	1.010E-17	-1.000E+00	6.750E-10	6.130E-12
THYROID	1.370E-13	1.564E-13	3.157E-12	5.440E-18	-1.000E+00	4.800E-10	1.290E-13
REMAINDER	1.280E-13	1.509E-13	3.047E-12	5.250E-18	-1.000E+00	3.190E-09	8.570E-09
EFFECTIVE	1.370E-13	1.650E-13	3.332E-12	5.740E-18	-1.000E+00	3.170E-09	2.570E-09
SKIN(FGR)	1.730E-13	1.989E-10	4.016E-09	6.920E-15	-1.000E+00	0.000E+00	0.000E+00
Te-131							
GONADS	1.990E-14	3.855E-12	4.872E-12	2.650E-16	-1.000E+00	6.140E-12	1.960E-11
BREAST	2.280E-14	3.680E-12	4.652E-12	2.530E-16	-1.000E+00	5.530E-12	3.550E-12
LUNGS	1.960E-14	3.535E-12	4.468E-12	2.430E-16	-1.000E+00	2.540E-10	1.390E-12
RED MARR	1.880E-14	3.608E-12	4.560E-12	2.480E-16	-1.000E+00	6.640E-12	4.910E-12
BONE SUR	3.800E-14	5.091E-12	6.435E-12	3.500E-16	-1.000E+00	6.210E-12	1.750E-12
THYROID	2.030E-14	3.579E-12	4.523E-12	2.460E-16	-1.000E+00	2.630E-09	1.770E-13
REMAINDER	1.870E-14	3.506E-12	4.431E-12	2.410E-16	-1.000E+00	5.420E-11	1.700E-09
EFFECTIVE	2.040E-14	3.680E-12	4.652E-12	2.530E-16	-1.000E+00	1.290E-10	5.150E-10
SKIN(FGR)	6.890E-14	2.022E-10	2.556E-10	1.390E-14	-1.000E+00	0.000E+00	0.000E+00
Te-133							
GONADS	4.490E-14	2.108E-12	4.989E-12	9.510E-17	-1.000E+00	6.700E-13	2.200E-11
BREAST	5.100E-14	2.026E-12	4.794E-12	9.140E-17	-1.000E+00	8.480E-13	3.130E-12
LUNGS	4.470E-14	1.937E-12	4.585E-12	8.740E-17	-1.000E+00	4.390E-11	8.670E-13
RED MARR	4.360E-14	1.972E-12	4.669E-12	8.900E-17	-1.000E+00	8.390E-13	4.930E-12
BONE SUR	7.500E-14	2.948E-12	6.977E-12	1.330E-16	-1.000E+00	7.490E-13	1.730E-12
THYROID	4.590E-14	1.908E-12	4.516E-12	8.610E-17	-1.000E+00	5.910E-10	1.260E-13
REMAINDER	4.290E-14	1.919E-12	4.543E-12	8.660E-17	-1.000E+00	5.020E-12	4.090E-09
EFFECTIVE	4.600E-14	2.021E-12	4.784E-12	9.120E-17	-1.000E+00	2.490E-11	1.230E-09
SKIN(FGR)	1.060E-13	2.726E-10	6.452E-10	1.230E-14	-1.000E+00	0.000E+00	0.000E+00
Te-134							
GONADS	4.160E-14	2.182E-11	4.421E-10	7.590E-16	-1.000E+00	9.000E-12	8.160E-10

BREAST	4.750E-14	2.084E-11	4.223E-10	7.250E-16	-1.000E+00	8.720E-12	1.050E-10
LUNGS	4.100E-14	1.989E-11	4.030E-10	6.920E-16	-1.000E+00	6.020E-11	2.340E-11
RED MARR	3.940E-14	2.030E-11	4.112E-10	7.060E-16	-1.000E+00	9.300E-12	2.140E-10
BONE SUR	7.560E-14	2.875E-11	5.824E-10	1.000E-15	-1.000E+00	8.580E-12	4.860E-10
THYROID	4.230E-14	2.076E-11	4.205E-10	7.220E-16	-1.000E+00	5.540E-10	8.270E-12
REMAINDER	3.910E-14	1.963E-11	3.978E-10	6.830E-16	-1.000E+00	1.880E-11	2.530E-09
EFFECTIVE	4.240E-14	2.078E-11	4.211E-10	7.230E-16	-1.000E+00	3.440E-11	1.020E-09
SKIN(FGR)	6.350E-14	2.561E-11	5.190E-10	8.910E-16	-1.000E+00	0.000E+00	0.000E+00
Te-125m							
GONADS	5.960E-16	2.179E-11	7.799E-11	9.253E-16	-1.000E+00	7.930E-11	6.228E-10
BREAST	8.480E-16	2.083E-11	7.455E-11	8.846E-16	-1.000E+00	7.080E-11	8.137E-11
LUNGS	2.230E-16	1.992E-11	7.127E-11	8.456E-16	-1.000E+00	1.040E-08	1.770E-11
RED MARR	1.860E-16	2.034E-11	7.279E-11	8.634E-16	-1.000E+00	1.150E-09	1.302E-10
BONE SUR	1.220E-15	2.881E-11	1.031E-10	1.224E-15	-1.000E+00	1.180E-08	4.558E-11
THYROID	4.640E-16	2.061E-11	7.377E-11	8.755E-16	-1.000E+00	3.870E-11	2.671E-12
REMAINDER	2.590E-16	1.966E-11	7.035E-11	8.345E-16	-1.000E+00	6.750E-10	6.990E-09
EFFECTIVE	4.530E-16	2.078E-11	7.438E-11	8.824E-16	-1.000E+00	1.970E-09	2.283E-09
SKIN(FGR)	1.940E-15	2.281E-10	8.148E-10	9.587E-15	-1.000E+00	0.000E+00	0.000E+00
Te-133m							
GONADS	1.120E-13	2.253E-11	4.435E-10	7.850E-16	-1.000E+00	8.970E-12	8.050E-10
BREAST	1.270E-13	2.150E-11	4.231E-10	7.490E-16	-1.000E+00	7.820E-12	1.070E-10
LUNGS	1.120E-13	2.055E-11	4.045E-10	7.160E-16	-1.000E+00	1.820E-10	2.740E-11
RED MARR	1.090E-13	2.101E-11	4.135E-10	7.320E-16	-1.000E+00	8.320E-12	1.990E-10
BONE SUR	1.750E-13	2.957E-11	5.819E-10	1.030E-15	-1.000E+00	6.940E-12	2.940E-10
THYROID	1.150E-13	2.144E-11	4.220E-10	7.470E-16	-1.000E+00	2.610E-09	1.180E-11
REMAINDER	1.070E-13	2.032E-11	4.000E-10	7.080E-16	-1.000E+00	4.140E-11	1.470E-09
EFFECTIVE	1.140E-13	2.147E-11	4.226E-10	7.480E-16	-1.000E+00	1.170E-10	6.950E-10
SKIN(FGR)	1.740E-13	2.598E-11	5.112E-10	9.050E-16	-1.000E+00	0.000E+00	0.000E+00
Ba-141							
GONADS	4.060E-14	4.282E-12	4.403E-11	1.550E-16	-1.000E+00	1.410E-12	2.180E-10
BREAST	4.630E-14	4.116E-12	4.233E-11	1.490E-16	-1.000E+00	1.470E-12	3.430E-11
LUNGS	4.030E-14	3.867E-12	3.977E-11	1.400E-16	-1.000E+00	1.160E-10	1.510E-11
RED MARR	3.910E-14	3.923E-12	4.034E-11	1.420E-16	-1.000E+00	2.490E-12	8.320E-11
BONE SUR	7.170E-14	6.105E-12	6.278E-11	2.210E-16	-1.000E+00	4.730E-12	6.320E-11
THYROID	4.150E-14	4.033E-12	4.147E-11	1.460E-16	-1.000E+00	1.330E-12	1.030E-11
REMAINDER	3.870E-14	3.812E-12	3.920E-11	1.380E-16	-1.000E+00	2.270E-11	4.280E-09
EFFECTIVE	4.160E-14	4.061E-12	4.176E-11	1.470E-16	-1.000E+00	2.180E-11	1.360E-09
SKIN(FGR)	1.070E-13	1.039E-10	1.068E-09	3.760E-15	-1.000E+00	0.000E+00	0.000E+00
Ba-137m							
GONADS	2.820E-14	2.334E-12	3.877E-12	1.240E-16	-1.000E+00	0.000E+00	9.750E-12
BREAST	3.220E-14	2.258E-12	3.752E-12	1.200E-16	-1.000E+00	0.000E+00	3.570E-12
LUNGS	2.800E-14	2.127E-12	3.533E-12	1.130E-16	-1.000E+00	0.000E+00	3.140E-12
RED MARR	2.730E-14	2.070E-12	3.439E-12	1.100E-16	-1.000E+00	0.000E+00	6.290E-12
BONE SUR	4.630E-14	5.383E-12	8.942E-12	2.860E-16	-1.000E+00	0.000E+00	4.060E-12
THYROID	2.880E-14	2.145E-12	3.564E-12	1.140E-16	-1.000E+00	0.000E+00	8.460E-11
REMAINDER	2.680E-14	2.070E-12	3.439E-12	1.100E-16	-1.000E+00	0.000E+00	3.340E-11
EFFECTIVE	2.880E-14	2.277E-12	3.783E-12	1.210E-16	-1.000E+00	0.000E+00	1.680E-11
SKIN(FGR)	3.730E-14	2.710E-12	4.502E-12	1.440E-16	-1.000E+00	0.000E+00	0.000E+00
Pd-109							
GONADS	2.710E-16	1.404E-11	2.783E-10	4.892E-16	-1.000E+00	2.130E-12	5.720E-10
BREAST	3.520E-16	1.350E-11	2.677E-10	4.705E-16	-1.000E+00	5.110E-13	1.200E-10
LUNGS	1.940E-16	1.273E-11	2.522E-10	4.432E-16	-1.000E+00	1.200E-09	7.310E-11
RED MARR	1.740E-16	1.287E-11	2.551E-10	4.483E-16	-1.000E+00	9.820E-13	1.660E-10
BONE SUR	7.020E-16	1.958E-11	3.882E-10	6.823E-16	-1.000E+00	9.580E-13	9.631E-11
THYROID	2.460E-16	1.331E-11	2.639E-10	4.638E-16	-1.000E+00	1.550E-13	6.250E-11
REMAINDER	1.920E-16	1.248E-11	2.472E-10	4.346E-16	-1.000E+00	5.040E-10	2.110E-09
EFFECTIVE	2.510E-16	1.332E-11	2.641E-10	4.642E-16	-1.000E+00	2.960E-10	8.271E-10
SKIN(FGR)	2.150E-14	1.785E-11	3.543E-10	6.229E-16	-1.000E+00	0.000E+00	0.000E+00
Rh-106							
GONADS	1.010E-14	1.327E-11	1.861E-11	8.070E-16	-1.000E+00	0.000E+00	9.670E-11
BREAST	1.160E-14	1.271E-11	1.783E-11	7.730E-16	-1.000E+00	0.000E+00	1.590E-11
LUNGS	1.010E-14	1.210E-11	1.697E-11	7.360E-16	-1.000E+00	0.000E+00	6.210E-12
RED MARR	9.750E-15	1.230E-11	1.725E-11	7.480E-16	-1.000E+00	0.000E+00	2.350E-11
BONE SUR	1.720E-14	1.809E-11	2.537E-11	1.100E-15	-1.000E+00	0.000E+00	8.890E-12
THYROID	1.030E-14	1.260E-11	1.766E-11	7.660E-16	-1.000E+00	0.000E+00	1.820E-12
REMAINDER	9.630E-15	1.189E-11	1.667E-11	7.230E-16	-1.000E+00	0.000E+00	8.540E-10
EFFECTIVE	1.040E-14	1.265E-11	1.773E-11	7.690E-16	-1.000E+00	0.000E+00	2.870E-10
SKIN(FGR)	1.090E-13	7.368E-11	1.033E-10	4.480E-15	-1.000E+00	0.000E+00	0.000E+00
Rh-103m							
GONADS	1.250E-17	6.411E-12	1.340E-10	2.230E-16	-1.000E+00	8.910E-14	1.640E-09
BREAST	2.150E-17	6.152E-12	1.286E-10	2.140E-16	-1.000E+00	8.800E-14	1.440E-09
LUNGS	1.870E-18	5.836E-12	1.220E-10	2.030E-16	-1.000E+00	7.750E-12	1.420E-09
RED MARR	2.820E-18	5.893E-12	1.232E-10	2.050E-16	-1.000E+00	8.840E-14	1.460E-09

BONE SUR	1.760E-17	8.883E-12	1.856E-10	3.090E-16	-1.000E+00	8.730E-14	1.430E-09
THYROID	8.550E-18	6.066E-12	1.268E-10	2.110E-16	-1.000E+00	8.490E-14	1.410E-09
REMAINDER	3.680E-18	5.721E-12	1.196E-10	1.990E-16	-1.000E+00	1.340E-12	2.110E-08
EFFECTIVE	8.800E-18	6.095E-12	1.274E-10	2.120E-16	-1.000E+00	1.380E-12	7.400E-09
SKIN(FGR)	4.490E-17	4.082E-10	8.531E-09	1.420E-14	-1.000E+00	0.000E+00	0.000E+00
Tc-101							
GONADS	1.570E-14	2.127E-12	1.411E-11	7.980E-17	-1.000E+00	2.500E-13	5.800E-11
BREAST	1.800E-14	2.063E-12	1.369E-11	7.740E-17	-1.000E+00	3.030E-13	8.970E-12
LUNGS	1.540E-14	1.935E-12	1.284E-11	7.260E-17	-1.000E+00	2.830E-11	3.860E-12
RED MARR	1.460E-14	1.946E-12	1.291E-11	7.300E-17	-1.000E+00	3.190E-13	1.470E-11
BONE SUR	3.210E-14	3.332E-12	2.210E-11	1.250E-16	-1.000E+00	2.800E-13	6.750E-12
THYROID	1.590E-14	1.983E-12	1.316E-11	7.440E-17	-1.000E+00	7.720E-12	2.910E-12
REMAINDER	1.470E-14	1.885E-12	1.250E-11	7.070E-17	-1.000E+00	3.520E-12	1.270E-09
EFFECTIVE	1.610E-14	2.031E-12	1.347E-11	7.620E-17	-1.000E+00	4.840E-12	3.990E-10
SKIN(FGR)	4.770E-14	4.691E-12	3.112E-11	1.760E-16	-1.000E+00	0.000E+00	0.000E+00
Eu-154							
GONADS	6.000E-14	1.985E-11	2.441E-10	7.100E-16	-1.000E+00	1.170E-08	6.140E-10
BREAST	6.810E-14	1.904E-11	2.341E-10	6.810E-16	-1.000E+00	1.550E-08	7.600E-11
LUNGS	5.990E-14	1.809E-11	2.224E-10	6.470E-16	-1.000E+00	7.920E-08	1.570E-11
RED MARR	5.870E-14	1.834E-11	2.255E-10	6.560E-16	-1.000E+00	1.060E-07	1.330E-10
BONE SUR	9.430E-14	2.720E-11	3.345E-10	9.730E-16	-1.000E+00	5.230E-07	5.240E-11
THYROID	6.150E-14	1.884E-11	2.317E-10	6.740E-16	-1.000E+00	7.140E-09	4.640E-12
REMAINDER	5.750E-14	1.775E-11	2.183E-10	6.350E-16	-1.000E+00	1.130E-07	5.870E-09
EFFECTIVE	6.140E-14	1.890E-11	2.324E-10	6.760E-16	-1.000E+00	7.730E-08	1.950E-09
SKIN(FGR)	8.290E-14	7.967E-11	9.799E-10	2.850E-15	-1.000E+00	0.000E+00	0.000E+00
Eu-155							
GONADS	2.490E-15	2.336E-11	3.231E-11	1.440E-15	-1.000E+00	3.560E-10	1.510E-10
BREAST	2.950E-15	2.222E-11	3.074E-11	1.370E-15	-1.000E+00	6.140E-10	2.560E-11
LUNGS	2.220E-15	2.141E-11	2.962E-11	1.320E-15	-1.000E+00	1.190E-08	9.390E-12
RED MARR	1.850E-15	2.190E-11	3.029E-11	1.350E-15	-1.000E+00	1.430E-08	3.670E-11
BONE SUR	8.090E-15	3.033E-11	4.196E-11	1.870E-15	-1.000E+00	1.520E-07	1.340E-11
THYROID	2.410E-15	2.174E-11	3.007E-11	1.340E-15	-1.000E+00	2.400E-10	1.470E-12
REMAINDER	2.070E-15	2.125E-11	2.939E-11	1.310E-15	-1.000E+00	1.110E-08	1.450E-09
EFFECTIVE	2.490E-15	2.238E-11	3.096E-11	1.380E-15	-1.000E+00	1.120E-08	4.840E-10
SKIN(FGR)	3.390E-15	8.273E-11	1.144E-10	5.100E-15	-1.000E+00	0.000E+00	0.000E+00
Eu-156							
GONADS	6.570E-14	1.191E-13	2.661E-13	5.480E-18	-1.000E+00	6.120E-10	4.020E-12
BREAST	7.420E-14	1.158E-13	2.588E-13	5.330E-18	-1.000E+00	3.640E-10	3.000E-12
LUNGS	6.630E-14	1.060E-13	2.370E-13	4.880E-18	-1.000E+00	1.840E-08	2.890E-12
RED MARR	6.560E-14	1.058E-13	2.365E-13	4.870E-18	-1.000E+00	1.140E-09	6.570E-12
BONE SUR	9.580E-14	1.862E-13	4.162E-13	8.570E-18	-1.000E+00	2.760E-09	6.460E-12
THYROID	6.780E-14	1.106E-13	2.472E-13	5.090E-18	-1.000E+00	2.160E-10	2.860E-12
REMAINDER	6.410E-14	1.036E-13	2.316E-13	4.770E-18	-1.000E+00	3.910E-09	6.130E-10
EFFECTIVE	6.750E-14	1.125E-13	2.515E-13	5.180E-18	-1.000E+00	3.820E-09	1.870E-10
SKIN(FGR)	9.980E-14	1.173E-11	2.622E-11	5.400E-16	-1.000E+00	0.000E+00	0.000E+00
La-143							
GONADS	5.040E-15	4.689E-13	9.642E-12	1.630E-17	-1.000E+00	6.530E-13	1.250E-10
BREAST	5.700E-15	5.150E-13	1.059E-11	1.790E-17	-1.000E+00	3.200E-13	9.740E-11
LUNGS	5.070E-15	1.602E-13	3.295E-12	5.570E-18	-1.000E+00	1.060E-10	9.620E-11
RED MARR	5.010E-15	1.249E-13	2.567E-12	4.340E-18	-1.000E+00	7.300E-13	5.430E-09
BONE SUR	7.590E-15	9.005E-13	1.852E-11	3.130E-17	-1.000E+00	7.290E-13	2.070E-08
THYROID	5.190E-15	2.779E-13	5.714E-12	9.660E-18	-1.000E+00	2.440E-13	9.430E-11
REMAINDER	4.900E-15	1.999E-13	4.111E-12	6.950E-18	-1.000E+00	1.050E-11	2.980E-09
EFFECTIVE	5.180E-15	3.251E-13	6.684E-12	1.130E-17	-1.000E+00	1.620E-11	2.230E-09
SKIN(FGR)	9.640E-14	1.496E-12	3.076E-11	5.200E-17	-1.000E+00	0.000E+00	0.000E+00
Nb-97							
GONADS	3.110E-14	3.889E-13	3.922E-13	6.510E-17	-1.000E+00	8.650E-13	1.590E-12
BREAST	3.550E-14	3.800E-13	3.832E-13	6.360E-17	-1.000E+00	1.120E-12	6.050E-13
LUNGS	3.100E-14	3.298E-13	3.326E-13	5.520E-17	-1.000E+00	1.560E-10	4.910E-13
RED MARR	3.010E-14	3.298E-13	3.326E-13	5.520E-17	-1.000E+00	1.140E-12	7.640E-13
BONE SUR	5.110E-14	5.753E-13	5.802E-13	9.630E-17	-1.000E+00	8.260E-13	5.400E-13
THYROID	3.180E-14	3.525E-13	3.555E-13	5.900E-17	-1.000E+00	9.200E-13	3.360E-13
REMAINDER	2.960E-14	3.262E-13	3.289E-13	5.460E-17	-1.000E+00	1.050E-11	1.790E-10
EFFECTIVE	3.180E-14	3.590E-13	3.621E-13	6.010E-17	-1.000E+00	2.240E-11	5.450E-11
SKIN(FGR)	6.510E-14	3.429E-11	3.458E-11	5.740E-15	-1.000E+00	0.000E+00	0.000E+00
Nb-95m							
GONADS	2.880E-15	2.206E-12	4.799E-11	8.561E-17	-1.000E+00	4.960E-11	2.420E-10
BREAST	3.310E-15	2.181E-12	4.739E-11	8.454E-17	-1.000E+00	4.530E-11	1.664E-10
LUNGS	2.770E-15	1.741E-12	3.815E-11	6.808E-17	-1.000E+00	3.070E-09	1.593E-10
RED MARR	2.590E-15	1.729E-12	3.793E-11	6.768E-17	-1.000E+00	5.870E-11	3.500E-09
BONE SUR	6.600E-15	3.287E-12	7.147E-11	1.275E-16	-1.000E+00	6.610E-11	7.990E-09
THYROID	2.890E-15	1.923E-12	4.201E-11	7.495E-17	-1.000E+00	3.860E-11	1.572E-10
REMAINDER	2.630E-15	1.746E-12	3.822E-11	6.819E-17	-1.000E+00	8.690E-10	7.196E-09

EFFECTIVE	2.930E-15	1.974E-12	4.308E-11	7.686E-17	-1.000E+00	6.590E-10	2.925E-09
SKIN(FGR)	1.120E-14	1.501E-10	3.360E-09	6.001E-15	-1.000E+00	0.000E+00	0.000E+00
Pm-147							
GONADS	7.480E-19	4.020E-11	2.343E-10	1.535E-15	-1.000E+00	8.250E-15	7.415E-10
BREAST	9.560E-19	3.853E-11	2.246E-10	1.472E-15	-1.000E+00	3.600E-14	1.361E-10
LUNGS	5.450E-19	3.657E-11	2.131E-10	1.397E-15	-1.000E+00	7.740E-08	6.335E-11
RED MARR	4.460E-19	3.736E-11	2.178E-10	1.427E-15	-1.000E+00	1.610E-09	2.435E-10
BONE SUR	2.180E-18	5.467E-11	3.189E-10	2.090E-15	-1.000E+00	2.010E-08	3.248E-10
THYROID	6.750E-19	3.741E-11	2.181E-10	1.429E-15	-1.000E+00	1.980E-14	4.383E-08
REMAINDER	5.260E-19	3.626E-11	2.113E-10	1.385E-15	-1.000E+00	1.560E-09	3.153E-09
EFFECTIVE	6.930E-19	3.825E-11	2.229E-10	1.461E-15	-1.000E+00	1.060E-08	2.514E-09
SKIN(FGR)	8.110E-16	1.033E-10	6.188E-10	4.056E-15	-1.000E+00	0.000E+00	0.000E+00
Pm-148							
GONADS	2.810E-14	6.812E-12	7.706E-11	2.450E-16	-1.000E+00	2.120E-10	5.410E-10
BREAST	3.190E-14	6.756E-12	7.643E-11	2.430E-16	-1.000E+00	7.190E-11	3.500E-10
LUNGS	2.830E-14	5.727E-12	6.479E-11	2.060E-16	-1.000E+00	1.370E-08	3.300E-10
RED MARR	2.790E-14	5.588E-12	6.322E-11	2.010E-16	-1.000E+00	1.070E-10	4.440E-10
BONE SUR	4.240E-14	1.273E-11	1.441E-10	4.580E-16	-1.000E+00	7.080E-11	8.300E-10
THYROID	2.890E-14	5.978E-12	6.762E-11	2.150E-16	-1.000E+00	3.820E-11	5.950E-08
REMAINDER	2.730E-14	5.644E-12	6.385E-11	2.030E-16	-1.000E+00	4.100E-09	1.490E-09
EFFECTIVE	2.890E-14	6.339E-12	7.171E-11	2.280E-16	-1.000E+00	2.950E-09	2.540E-09
SKIN(FGR)	7.970E-14	8.313E-12	9.405E-11	2.990E-16	-1.000E+00	0.000E+00	0.000E+00
Pm-149							
GONADS	5.300E-16	1.119E-11	1.789E-10	3.940E-16	-1.000E+00	3.610E-12	4.070E-11
BREAST	6.070E-16	1.082E-11	1.730E-10	3.810E-16	-1.000E+00	8.200E-13	1.210E-10
LUNGS	5.170E-16	1.016E-11	1.626E-10	3.580E-16	-1.000E+00	3.120E-09	1.020E-10
RED MARR	4.890E-16	1.022E-11	1.635E-10	3.600E-16	-1.000E+00	5.530E-12	9.440E-11
BONE SUR	1.100E-15	1.675E-11	2.679E-10	5.900E-16	-1.000E+00	5.010E-12	8.720E-11
THYROID	5.360E-16	1.053E-11	1.685E-10	3.710E-16	-1.000E+00	3.310E-13	4.760E-07
REMAINDER	4.910E-16	9.908E-12	1.585E-10	3.490E-16	-1.000E+00	1.390E-09	1.570E-10
EFFECTIVE	5.410E-16	1.067E-11	1.707E-10	3.760E-16	-1.000E+00	7.930E-10	1.440E-08
SKIN(FGR)	2.190E-14	1.825E-11	2.920E-10	6.430E-16	-1.000E+00	0.000E+00	0.000E+00
Pm-151							
GONADS	1.480E-14	2.523E-11	2.771E-11	2.320E-15	-1.000E+00	7.170E-11	2.330E-11
BREAST	1.700E-14	2.414E-11	2.652E-11	2.220E-15	-1.000E+00	1.590E-11	2.520E-11
LUNGS	1.440E-14	2.305E-11	2.532E-11	2.120E-15	-1.000E+00	1.640E-09	2.640E-11
RED MARR	1.370E-14	2.360E-11	2.592E-11	2.170E-15	-1.000E+00	2.720E-11	2.460E-11
BONE SUR	2.990E-14	3.327E-11	3.655E-11	3.060E-15	-1.000E+00	1.860E-11	2.190E-11
THYROID	1.500E-14	2.381E-11	2.616E-11	2.190E-15	-1.000E+00	6.180E-12	3.870E-09
REMAINDER	1.370E-14	2.283E-11	2.509E-11	2.100E-15	-1.000E+00	8.390E-10	1.650E-10
EFFECTIVE	1.510E-14	2.403E-11	2.640E-11	2.210E-15	-1.000E+00	4.730E-10	1.820E-10
SKIN(FGR)	3.320E-14	8.199E-11	9.007E-11	7.540E-15	-1.000E+00	0.000E+00	0.000E+00
Pm-148m							
GONADS	9.470E-14	1.585E-11	6.748E-11	6.270E-16	-1.000E+00	1.190E-09	3.630E-11
BREAST	1.080E-13	1.519E-11	6.468E-11	6.010E-16	-1.000E+00	1.240E-09	4.680E-11
LUNGS	9.420E-14	1.446E-11	6.156E-11	5.720E-16	-1.000E+00	3.590E-08	4.530E-11
RED MARR	9.140E-14	1.466E-11	6.242E-11	5.800E-16	-1.000E+00	1.360E-09	4.300E-11
BONE SUR	1.580E-13	2.161E-11	9.202E-11	8.550E-16	-1.000E+00	1.360E-09	4.070E-11
THYROID	9.680E-14	1.502E-11	6.393E-11	5.940E-16	-1.000E+00	1.050E-09	9.100E-08
REMAINDER	9.010E-14	1.418E-11	6.038E-11	5.610E-16	-1.000E+00	3.580E-09	1.550E-10
EFFECTIVE	9.680E-14	1.509E-11	6.425E-11	5.970E-16	-1.000E+00	6.100E-09	2.800E-09
SKIN(FGR)	1.180E-13	1.150E-10	4.897E-10	4.550E-15	-1.000E+00	0.000E+00	0.000E+00
Pr-144							
GONADS	1.900E-15	1.200E-11	1.202E-11	2.640E-15	-1.000E+00	2.410E-15	1.100E-11
BREAST	2.150E-15	1.145E-11	1.147E-11	2.520E-15	-1.000E+00	1.050E-14	1.170E-11
LUNGS	1.900E-15	1.100E-11	1.102E-11	2.420E-15	-1.000E+00	9.400E-11	1.260E-11
RED MARR	1.870E-15	1.127E-11	1.129E-11	2.480E-15	-1.000E+00	1.380E-14	1.090E-11
BONE SUR	2.990E-15	1.568E-11	1.571E-11	3.450E-15	-1.000E+00	1.470E-14	9.320E-12
THYROID	1.950E-15	1.127E-11	1.129E-11	2.480E-15	-1.000E+00	8.470E-15	6.210E-10
REMAINDER	1.840E-15	1.091E-11	1.093E-11	2.400E-15	-1.000E+00	1.400E-12	1.340E-10
EFFECTIVE	1.950E-15	1.150E-11	1.152E-11	2.530E-15	-1.000E+00	1.170E-11	6.660E-11
SKIN(FGR)	8.430E-14	4.477E-11	4.485E-11	9.850E-15	-1.000E+00	0.000E+00	0.000E+00
Pr-144m							
GONADS	3.250E-16	3.113E-11	5.489E-11	1.599E-15	-1.000E+00	0.000E+00	3.610E-11
BREAST	4.200E-16	2.971E-11	5.240E-11	1.526E-15	-1.000E+00	0.000E+00	3.850E-11
LUNGS	2.000E-16	2.886E-11	5.089E-11	1.482E-15	-1.000E+00	0.000E+00	3.750E-11
RED MARR	1.560E-16	2.965E-11	5.228E-11	1.523E-15	-1.000E+00	0.000E+00	3.650E-11
BONE SUR	8.160E-16	3.983E-11	7.024E-11	2.046E-15	-1.000E+00	0.000E+00	3.360E-11
THYROID	2.810E-16	2.852E-11	5.030E-11	1.465E-15	-1.000E+00	0.000E+00	1.790E-08
REMAINDER	1.980E-16	2.883E-11	5.084E-11	1.481E-15	-1.000E+00	0.000E+00	1.540E-10
EFFECTIVE	2.790E-16	2.989E-11	5.271E-11	1.535E-15	-1.000E+00	0.000E+00	6.080E-10
SKIN(FGR)	5.080E-16	9.826E-11	1.733E-10	5.047E-15	-1.000E+00	0.000E+00	0.000E+00
Sm-153							

GONADS	2.330E-15	1.465E-12	2.052E-11	5.200E-17	-1.000E+00	2.360E-11	0.000E+00
BREAST	2.820E-15	1.505E-12	2.107E-11	5.340E-17	-1.000E+00	5.670E-12	0.000E+00
LUNGS	1.970E-15	1.045E-12	1.464E-11	3.710E-17	-1.000E+00	2.050E-09	0.000E+00
RED MARR	1.620E-15	8.791E-13	1.231E-11	3.120E-17	-1.000E+00	6.660E-11	0.000E+00
BONE SUR	7.290E-15	4.254E-12	5.958E-11	1.510E-16	-1.000E+00	1.570E-10	0.000E+00
THYROID	2.220E-15	1.181E-12	1.653E-11	4.190E-17	-1.000E+00	1.510E-12	0.000E+00
REMAINDER	1.850E-15	1.042E-12	1.460E-11	3.700E-17	-1.000E+00	8.840E-10	0.000E+00
EFFECTIVE	2.280E-15	1.299E-12	1.819E-11	4.610E-17	-1.000E+00	5.310E-10	0.000E+00
SKIN(FGR)	1.450E-14	1.953E-12	2.734E-11	6.930E-17	-1.000E+00	0.000E+00	0.000E+00
Y-94							
GONADS	5.490E-14	5.455E-12	1.194E-11	2.530E-16	-1.000E+00	1.230E-13	0.000E+00
BREAST	6.210E-14	5.325E-12	1.166E-11	2.470E-16	-1.000E+00	4.400E-13	0.000E+00
LUNGS	5.500E-14	4.959E-12	1.086E-11	2.300E-16	-1.000E+00	1.480E-10	0.000E+00
RED MARR	5.420E-14	4.959E-12	1.086E-11	2.300E-16	-1.000E+00	4.180E-13	0.000E+00
BONE SUR	8.220E-14	9.120E-12	1.997E-11	4.230E-16	-1.000E+00	3.280E-13	0.000E+00
THYROID	5.650E-14	5.023E-12	1.100E-11	2.330E-16	-1.000E+00	4.120E-13	0.000E+00
REMAINDER	5.300E-14	4.829E-12	1.058E-11	2.240E-16	-1.000E+00	3.080E-12	0.000E+00
EFFECTIVE	5.620E-14	5.217E-12	1.142E-11	2.420E-16	-1.000E+00	1.890E-11	0.000E+00
SKIN(FGR)	1.800E-13	4.506E-11	9.867E-11	2.090E-15	-1.000E+00	0.000E+00	0.000E+00
Y-95							
GONADS	4.650E-14	4.607E-11	9.646E-10	1.600E-15	-1.000E+00	1.070E-13	2.060E-08
BREAST	5.190E-14	4.406E-11	9.224E-10	1.530E-15	-1.000E+00	3.170E-13	1.720E-08
LUNGS	4.720E-14	4.204E-11	8.802E-10	1.460E-15	-1.000E+00	8.040E-11	1.760E-08
RED MARR	4.730E-14	4.262E-11	8.922E-10	1.480E-15	-1.000E+00	3.200E-13	1.870E-08
BONE SUR	6.410E-14	6.105E-11	1.278E-09	2.120E-15	-1.000E+00	3.790E-13	1.740E-08
THYROID	4.840E-14	4.377E-11	9.163E-10	1.520E-15	-1.000E+00	2.790E-13	1.760E-08
REMAINDER	4.590E-14	4.147E-11	8.681E-10	1.440E-15	-1.000E+00	1.250E-12	2.210E-08
EFFECTIVE	4.790E-14	4.377E-11	9.163E-10	1.520E-15	-1.000E+00	1.020E-11	1.980E-08
SKIN(FGR)	1.590E-13	6.249E-11	1.308E-09	2.170E-15	-1.000E+00	0.000E+00	0.000E+00
Y-91m							
GONADS	2.490E-14	6.223E-11	1.102E-09	2.180E-15	-1.000E+00	3.210E-13	3.040E-09
BREAST	2.850E-14	5.966E-11	1.056E-09	2.090E-15	-1.000E+00	6.080E-13	2.650E-09
LUNGS	2.480E-14	5.710E-11	1.011E-09	2.000E-15	-1.000E+00	7.000E-11	2.620E-09
RED MARR	2.390E-14	5.824E-11	1.031E-09	2.040E-15	-1.000E+00	7.740E-13	2.950E-09
BONE SUR	4.280E-14	8.422E-11	1.491E-09	2.950E-15	-1.000E+00	6.210E-13	2.710E-09
THYROID	2.540E-14	5.852E-11	1.036E-09	2.050E-15	-1.000E+00	5.020E-13	2.740E-09
REMAINDER	2.370E-14	5.652E-11	1.001E-09	1.980E-15	-1.000E+00	3.740E-12	3.520E-09
EFFECTIVE	2.550E-14	5.966E-11	1.056E-09	2.090E-15	-1.000E+00	9.820E-12	3.040E-09
SKIN(FGR)	3.110E-14	7.251E-11	1.284E-09	2.540E-15	-1.000E+00	0.000E+00	0.000E+00
Br-82							
GONADS	1.270E-13	1.669E-11	3.530E-10	5.840E-16	-1.000E+00	1.690E-10	1.390E-08
BREAST	1.440E-13	1.596E-11	3.376E-10	5.585E-16	-1.000E+00	2.100E-10	1.240E-08
LUNGS	1.270E-13	1.517E-11	3.209E-10	5.309E-16	-1.000E+00	1.680E-09	1.270E-08
RED MARR	1.240E-13	1.542E-11	3.260E-10	5.394E-16	-1.000E+00	2.180E-10	1.320E-08
BONE SUR	1.990E-13	2.238E-11	4.734E-10	7.832E-16	-1.000E+00	1.920E-10	1.260E-08
THYROID	1.300E-13	1.588E-11	3.358E-10	5.556E-16	-1.000E+00	2.060E-10	1.260E-08
REMAINDER	1.220E-13	1.490E-11	3.152E-10	5.215E-16	-1.000E+00	3.310E-10	1.450E-08
EFFECTIVE	1.300E-13	1.585E-11	3.353E-10	5.546E-16	-1.000E+00	4.130E-10	1.350E-08
SKIN(FGR)	1.540E-13	5.253E-11	1.110E-09	1.836E-15	-1.000E+00	0.000E+00	0.000E+00
Br-83							
GONADS	3.740E-16	3.368E-13	3.429E-13	4.790E-17	-1.000E+00	1.130E-12	1.560E-12
BREAST	4.290E-16	3.297E-13	3.357E-13	4.690E-17	-1.000E+00	1.140E-12	5.170E-13
LUNGS	3.690E-16	3.002E-13	3.057E-13	4.270E-17	-1.000E+00	1.820E-10	3.890E-13
RED MARR	3.540E-16	2.932E-13	2.985E-13	4.170E-17	-1.000E+00	1.140E-12	8.590E-13
BONE SUR	6.750E-16	6.841E-13	6.965E-13	9.730E-17	-1.000E+00	1.140E-12	4.380E-13
THYROID	3.800E-16	3.044E-13	3.100E-13	4.330E-17	-1.000E+00	1.140E-12	2.660E-13
REMAINDER	3.520E-16	2.932E-13	2.985E-13	4.170E-17	-1.000E+00	5.310E-12	3.570E-10
EFFECTIVE	3.820E-16	3.227E-13	3.286E-13	4.590E-17	-1.000E+00	2.410E-11	1.080E-10
SKIN(FGR)	1.850E-14	7.241E-11	7.373E-11	1.030E-14	-1.000E+00	0.000E+00	0.000E+00
Br-84							
GONADS	9.160E-14	5.451E-12	9.607E-11	1.910E-16	-1.000E+00	2.840E-12	9.960E-10
BREAST	1.020E-13	5.280E-12	9.305E-11	1.850E-16	-1.000E+00	3.310E-12	1.590E-10
LUNGS	9.270E-14	4.852E-12	8.550E-11	1.700E-16	-1.000E+00	1.560E-10	6.630E-11
RED MARR	9.260E-14	4.880E-12	8.601E-11	1.710E-16	-1.000E+00	3.270E-12	4.390E-10
BONE SUR	1.280E-13	8.020E-12	1.413E-10	2.810E-16	-1.000E+00	2.990E-12	5.530E-10
THYROID	9.500E-14	5.109E-12	9.003E-11	1.790E-16	-1.000E+00	3.120E-12	5.250E-11
REMAINDER	8.990E-14	4.766E-12	8.399E-11	1.670E-16	-1.000E+00	1.870E-11	7.370E-09
EFFECTIVE	9.410E-14	5.137E-12	9.053E-11	1.800E-16	-1.000E+00	2.610E-11	2.560E-09
SKIN(FGR)	1.880E-13	5.565E-11	9.808E-10	1.950E-15	-1.000E+00	0.000E+00	0.000E+00
Am-242							
GONADS	6.090E-16	6.027E-11	4.425E-10	2.240E-15	-1.000E+00	1.940E-09	1.340E-09
BREAST	7.300E-16	5.758E-11	4.228E-10	2.140E-15	-1.000E+00	2.940E-12	1.800E-10
LUNGS	5.510E-16	5.596E-11	4.109E-10	2.080E-15	-1.000E+00	5.200E-08	4.010E-11

RED MARR	4.770E-16	5.731E-11	4.208E-10	2.130E-15	-1.000E+00	1.320E-08	2.810E-10
BONE SUR	1.880E-15	7.776E-11	5.709E-10	2.890E-15	-1.000E+00	1.650E-07	9.770E-11
THYROID	5.940E-16	5.462E-11	4.010E-10	2.030E-15	-1.000E+00	2.520E-12	6.400E-12
REMAINDER	5.180E-16	5.569E-11	4.089E-10	2.070E-15	-1.000E+00	8.540E-09	6.260E-09
EFFECTIVE	6.150E-16	5.812E-11	4.267E-10	2.160E-15	-1.000E+00	1.580E-08	2.280E-09
SKIN(FGR)	8.200E-15	2.217E-10	1.628E-09	8.240E-15	-1.000E+00	0.000E+00	0.000E+00
Np-238							
GONADS	2.660E-14	7.315E-13	9.675E-13	4.740E-17	-1.000E+00	1.990E-09	3.770E-12
BREAST	3.020E-14	7.007E-13	9.267E-13	4.540E-17	-1.000E+00	4.180E-11	7.070E-13
LUNGS	2.650E-14	6.713E-13	8.879E-13	4.350E-17	-1.000E+00	3.470E-09	2.720E-13
RED MARR	2.610E-14	6.852E-13	9.063E-13	4.440E-17	-1.000E+00	1.690E-08	1.070E-12
BONE SUR	3.990E-14	9.923E-13	1.312E-12	6.430E-17	-1.000E+00	2.100E-07	6.060E-13
THYROID	2.730E-14	6.590E-13	8.716E-13	4.270E-17	-1.000E+00	2.450E-11	5.290E-14
REMAINDER	2.550E-14	6.682E-13	8.838E-13	4.330E-17	-1.000E+00	2.550E-09	1.240E-09
EFFECTIVE	2.720E-14	7.007E-13	9.267E-13	4.540E-17	-1.000E+00	1.000E-08	3.740E-10
SKIN(FGR)	4.310E-14	1.667E-10	2.204E-10	1.080E-14	-1.000E+00	0.000E+00	0.000E+00
Pu-243							
GONADS	1.020E-15	1.978E-11	2.034E-11	2.540E-15	-1.000E+00	1.670E-12	6.990E-11
BREAST	1.210E-15	1.885E-11	1.938E-11	2.420E-15	-1.000E+00	2.750E-13	1.540E-11
LUNGS	9.280E-16	1.846E-11	1.898E-11	2.370E-15	-1.000E+00	2.270E-10	8.400E-12
RED MARR	7.840E-16	1.900E-11	1.954E-11	2.440E-15	-1.000E+00	5.770E-12	1.930E-11
BONE SUR	3.230E-15	2.484E-11	2.554E-11	3.190E-15	-1.000E+00	6.530E-11	7.400E-12
THYROID	9.910E-16	1.768E-11	1.818E-11	2.270E-15	-1.000E+00	1.130E-13	1.160E-12
REMAINDER	8.660E-16	1.853E-11	1.906E-11	2.380E-15	-1.000E+00	4.690E-11	5.200E-10
EFFECTIVE	1.030E-15	1.916E-11	1.970E-11	2.460E-15	-1.000E+00	4.440E-11	1.790E-10
SKIN(FGR)	8.150E-15	9.111E-11	9.368E-11	1.170E-14	-1.000E+00	0.000E+00	0.000E+00

Attachment 4 Secondary Side Release DNB Noble Gas Dose

```
#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:12:44
#######################################################################

#######################################################################
                      File information
#######################################################################

Plant file name           = AST/CRE/pal_CRE_DNB_sec_ng_db_ast.psf
Inventory file name       = AST/CRE/palisades_loca_db_ast.nif
Scenario file name        = AST/CRE/pal_CRE_DNB_sec_ng_db_ast.psf
Release file name         = AST/CRE/pal_cre_dnb_sec_ng.rft
Dose conversion file name = AST/CRE/nai-1101-001rev0.dcf




     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #


*RADTRAD-NAI 1.1a(QA)
*18 May 2006 13:12:38
** Palisades CRE Design Basis AST
** DNB Secondary Release Noble Gas Activity Dose
**
*Nuclide inventory file
AST/CRE/palisades_loca_db_ast.nif
*Plant power
810.576
*Compartments
3
*Compartment 1:
PCS
   3
432976.8
   0
   0
   0
   0
*Compartment 2:
Environment
   2
2e+20
   0
   0
   0
   0
*Compartment 3:
Control Room
   1
35923
   0
   1
   0
   0
*Pathways
   5
*Pathway 1:
SG Tube Leakage
   1
   2
   2
*Pathway 2:
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```
Control Room Unfiltered Makeup
   2
   3
   2
*Pathway 3:
Control Room Filtered Makeup
   2
   3
   2
*Pathway 4:
Control Room Unfiltered Inleakage
   2
   3
   2
*Pathway 5:
Control Room Exhaust
   3
   2
   2
*Sources
   3
   1 1
   2 0
   3 0
*dose conversion factors filename
AST/CRE/nai-1101-001rev0.dcf
*release fraction and timing filename
AST/CRE/pal_cre_dnb_sec_ng.rft
0
   1
   1
*Iodine
0 0.97 0.03
*Overlying pool
*aerosol model
   0
*elemental model
   0
*organic model
   0
*pH tracking
   0
*Compartment detail
*Compartment 1:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Compartment 2:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Compartment 3:
   1
*spray model
0
0
0
*filter model
   1
```

```
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*deposition model
0
0
*Pathways:
*Pathway 1
*filter efficiency model
   1
   3
0 5.005 0 0 0
8 0 0 0 0
720 0 0 0 0
*Pathway 2
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 0 0 0 0
720 0 0 0 0
*Pathway 3
*filter efficiency model
   1
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*Pathway 4
*filter efficiency model
   1
   3
0 0 0 0 0
0.3333 10 0 0 0
720 10 0 0 0
*Pathway 5
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 1423.6 0 0 0
720 1423.6 0 0 0
*x/q tables
   4
EAB
   2
0 0.000539
720 0.000539
LPZ
   6
0 6.66e-05
2 3.03e-05
8 2.04e-05
24 8.67e-06
96 2.54e-06
720 2.54e-06
Control Room Unfiltered
   7
0 0.0211
0.305556 0.0165
2 0.0134
8 0.0054
24 0.00403
96 0.00298
720 0.00298
Control Room Filtered
   7
0 0.000796
0.305556 0.000736
2 0.000642
```

```
8 0.000243
24 0.000175
96 0.000128
720 0.000128
*dose locations
   3
*location name, compartment number and x/q table
EAB
   2
   1
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
LPZ
   2
   2
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
Control Room
   3
   0
*br model
   1
   2
0 0.00035
720 0.00035
*of model
   1
   4
0 1
24 0.6
96 0.4
720 0.4
*location x/q input to be included
   1
*number of intake combinations
   3
*intake combinations
2 1 3
3 1 4
4 1 3
*time step count
   3
0 1e-06
0.001 0.02
720 0.02
*show plant, scenario, event, step, model
   1
   1
   1
   0
   1

 ######################################################################
```

```
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:12:44
######################################################################

######################################################################
                      Plant Description
######################################################################

Number of Nuclides = 107

Inventory Power =   2.7030E+03 MWth
Plant Power Level =   8.1058E+02 MWth

Number of compartments    =   3

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00)
Name: PCS
Compartment volume =   4.3298E+05 (Cubic feet)
Pathways into and out of compartment  1
    Pathway to compartment number   2: SG Tube Leakage

Compartment number  2
Name: Environment
Pathways into and out of compartment  2
    Pathway to compartment number   3: Control Room Unfiltered Makeup
    Pathway to compartment number   3: Control Room Filtered Makeup
    Pathway to compartment number   3: Control Room Unfiltered Inleakage
    Pathway from compartment number 1: SG Tube Leakage
    Pathway from compartment number 3: Control Room Exhaust

Compartment number  3
Name: Control Room
Compartment volume =   3.5923E+04 (Cubic feet)
Removal devices within compartment:
     Filter(s)
Pathways into and out of compartment  3
    Pathway to compartment number   2: Control Room Exhaust
    Pathway from compartment number 2: Control Room Unfiltered Makeup
    Pathway from compartment number 2: Control Room Filtered Makeup
    Pathway from compartment number 2: Control Room Unfiltered Inleakage

Total number of pathways =   5


######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:12:44
######################################################################

######################################################################
                      Scenario Description
######################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Iodine fractions
     Aerosol     =   0.0000E+00
     Elemental   =   9.7000E-01
     Organic     =   3.0000E-02

COMPARTMENT DATA

Compartment number   1: PCS

Compartment number   2: Environment

Compartment number   3: Control Room

     Compartment Filter Data

      Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
```

0.0000E+00	0.0000E+00	9.9000E+01	9.9000E+01	9.9000E+01
3.3330E-01	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01

PATHWAY DATA

Pathway number 1: SG Tube Leakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.0050E+00	0.0000E+00	0.0000E+00	0.0000E+00
8.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 2: Control Room Unfiltered Makeup

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	3.8420E+02	0.0000E+00	0.0000E+00	0.0000E+00
2.5000E-02	6.6000E+02	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 3: Control Room Filtered Makeup

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	9.9000E+01	9.9000E+01	9.9000E+01
3.3330E-01	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01

Pathway number 4: Control Room Unfiltered Inleakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Control Room Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	3.8420E+02	0.0000E+00	0.0000E+00	0.0000E+00
2.5000E-02	6.6000E+02	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00

X/Q DATA

X/Q table 1: EAB

Time (hr)	X/Q (s * m^-3)
0.0000E+00	5.3900E-04
7.2000E+02	5.3900E-04

X/Q table 2: LPZ

Time (hr)	X/Q (s * m^-3)
0.0000E+00	6.6600E-05
2.0000E+00	3.0300E-05
8.0000E+00	2.0400E-05
2.4000E+01	8.6700E-06
9.6000E+01	2.5400E-06
7.2000E+02	2.5400E-06

```
X/Q table   3: Control Room Unfiltered
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          2.1100E-02
       3.0556E-01          1.6500E-02
       2.0000E+00          1.3400E-02
       8.0000E+00          5.4000E-03
       2.4000E+01          4.0300E-03
       9.6000E+01          2.9800E-03
       7.2000E+02          2.9800E-03

X/Q table   4: Control Room Filtered
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          7.9600E-04
       3.0556E-01          7.3600E-04
       2.0000E+00          6.4200E-04
       8.0000E+00          2.4300E-04
       2.4000E+01          1.7500E-04
       9.6000E+01          1.2800E-04
       7.2000E+02          1.2800E-04

LOCATION DATA

     Location EAB is in compartment   2

     Using X/Q Table   1

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location LPZ is in compartment   2

     Using X/Q Table   2

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location Control Room is in compartment   3

     Inleakage X/Q Table Assignments
     Inleakage Path   Source Path  X/Q Table
            2              1           3
            3              1           4
            4              1           3

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       7.2000E+02                3.5000E-04

     Location Occupancy Factor Data
      Time (hr)         Occupancy Factor
       0.0000E+00            1.0000E+00
       2.4000E+01            6.0000E-01
       9.6000E+01            4.0000E-01
       7.2000E+02            4.0000E-01

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
      0.0000E+00       1.0000E-06
      1.0000E-03       2.0000E-02
      7.2000E+02       2.0000E-02

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:12:44
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```
#######################################################################

     ####   #    #  #####  #####   #    #  #####
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #####   #    #    #
    #    #  #    #    #    #       #    #    #
    #    #  #    #    #    #       #    #    #
     ####    ####     #    #        ####     #

#######################################################################
           Dose, Detailed Model and Detailed Inventory Output
#######################################################################

Detailed model information at time (H) =    0.0001

EAB Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        3.1976E-05  1.7533E-11  5.9552E-05  3.1976E-05
Accumulated dose (rem)  3.1976E-05  1.7533E-11  5.9552E-05  3.1976E-05

LPZ Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        3.9511E-06  2.1664E-12  7.3584E-06  3.9511E-06
Accumulated dose (rem)  3.9511E-06  2.1664E-12  7.3584E-06  3.9511E-06

Control Room Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        7.9400E-10  2.2106E-14  5.0061E-08  7.9421E-10
Accumulated dose (rem)  7.9400E-10  2.2106E-14  5.0061E-08  7.9421E-10

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0001       Ci           kg         Atoms         Bq
Kr-85                 3.1547E+04  8.0409E-02  5.6969E+23  1.1673E+15
Kr-85m                5.8416E+05  7.0983E-05  5.0291E+20  2.1614E+16
Kr-87                 1.1263E+06  3.9762E-05  2.7523E+20  4.1673E+16
Kr-88                 1.5851E+06  1.2641E-04  8.6509E+20  5.8650E+16
Xe-133                4.3962E+06  2.3486E-02  1.0634E+23  1.6266E+17
Xe-135                1.4070E+06  5.5098E-04  2.4578E+21  5.2061E+16
Kr-83m                2.7346E+05  1.3254E-05  9.6165E+19  1.0118E+16
Xe-138                3.6305E+06  3.7756E-05  1.6476E+20  1.3433E+17
Xe-131m               2.5028E+04  2.9880E-04  1.3736E+21  9.2604E+14
Xe-133m               1.3971E+05  3.1137E-04  1.4099E+21  5.1694E+15
Xe-135m               8.9918E+05  9.8711E-06  4.4033E+19  3.3270E+16
Cs-138                2.3681E+02  5.5964E-09  2.4422E+16  8.7620E+12
Rb-88                 1.8702E+02  1.5580E-09  1.0662E+16  6.9196E+12

PCS Transport Group Inventory:

                                                Overlying
Time (h) =   0.0001    Atmosphere     Sump        Pool
Noble gases (atoms)    6.8322E+23  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          7.1544E-09  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0001     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:
```

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	1.0897E-03	2.7775E-09	1.9678E+16	4.0320E+07
Kr-85m	2.0178E-02	2.4519E-12	1.7372E+13	7.4659E+08
Kr-87	3.8905E-02	1.3735E-12	9.5072E+12	1.4395E+09
Kr-88	5.4754E-02	4.3666E-12	2.9882E+13	2.0259E+09
Xe-133	1.5186E-01	8.1128E-10	3.6734E+15	5.6187E+09
Xe-135	4.8603E-02	1.9032E-11	8.4899E+13	1.7983E+09
Kr-83m	9.4457E-03	4.5782E-13	3.3217E+12	3.4949E+08
Xe-138	1.2541E-01	1.3042E-12	5.6913E+12	4.6400E+09
Xe-131m	8.6453E-04	1.0321E-11	4.7448E+13	3.1987E+07
Xe-133m	4.8261E-03	1.0756E-11	4.8700E+13	1.7856E+08
Xe-135m	3.1059E-02	3.4096E-13	1.5210E+12	1.1492E+09
Cs-138	1.0879E-05	2.5710E-16	1.1219E+09	4.0252E+05
Rb-88	8.5914E-06	7.1572E-17	4.8979E+08	3.1788E+05

Environment Transport Group Inventory:

Time (h) = 0.0001	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	4.6969E+14	1.3047E+17	2.3600E+16
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	4.9426E-18	1.3730E-15	3.2867E-16

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Pathway

Time (h) = 0.0001	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	4.1855E-06	1.0668E-11	7.5583E+13	1.5486E+05
Kr-85m	7.7502E-05	9.4176E-15	6.6722E+10	2.8676E+06
Kr-87	1.4943E-04	5.2754E-15	3.6516E+10	5.5289E+06
Kr-88	2.1030E-04	1.6772E-14	1.1477E+11	7.7813E+06
Xe-133	5.8327E-04	3.1160E-12	1.4109E+13	2.1581E+07
Xe-135	1.8668E-04	7.3100E-14	3.2609E+11	6.9071E+06
Kr-83m	3.6280E-05	1.7584E-15	1.2758E+10	1.3424E+06
Xe-138	4.8167E-04	5.0093E-15	2.1860E+10	1.7822E+07
Xe-131m	3.3206E-06	3.9643E-14	1.8224E+11	1.2286E+05
Xe-133m	1.8536E-05	4.1311E-14	1.8705E+11	6.8585E+05
Xe-135m	1.1929E-04	1.3096E-15	5.8419E+09	4.4139E+06
Cs-138	4.1787E-08	9.8753E-19	4.3095E+06	1.5461E+03
Rb-88	3.3000E-08	2.7491E-19	1.8813E+06	1.2210E+03

Control Room Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	9.0646E+13	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	1.2624E-18	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00

```
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.0250

EAB Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.6077E-02  1.2308E-06  3.0010E-02  1.6089E-02
Accumulated dose (rem)  1.6109E-02  1.2308E-06  3.0069E-02  1.6121E-02

LPZ Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.9865E-03  1.5208E-07  3.7081E-03  1.9880E-03
Accumulated dose (rem)  1.9905E-03  1.5209E-07  3.7154E-03  1.9920E-03

Control Room Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.4868E-04  6.3164E-07  9.4087E-03  1.5484E-04
Accumulated dose (rem)  1.4868E-04  6.3164E-07  9.4087E-03  1.5485E-04

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0250       Ci           kg         Atoms         Bq
Kr-85                  3.1862E+04  8.1212E-02  5.7538E+23  1.1789E+15
Kr-85m                 5.8772E+05  7.1416E-05  5.0597E+20  2.1746E+16
Kr-87                  1.1222E+06  3.9618E-05  2.7423E+20  4.1521E+16
Kr-88                  1.5913E+06  1.2690E-04  8.6843E+20  5.8876E+16
Xe-133                 4.4395E+06  2.3718E-02  1.0739E+23  1.6426E+17
Xe-135                 1.4201E+06  5.5608E-04  2.4806E+21  5.2542E+16
Kr-83m                 2.7359E+05  1.3261E-05  9.6213E+19  1.0123E+16
Xe-138                 3.4083E+06  3.5446E-05  1.5468E+20  1.2611E+17
Xe-131m                2.5276E+04  3.0177E-04  1.3872E+21  9.3522E+14
Xe-133m                1.4106E+05  3.1438E-04  1.4235E+21  5.2193E+15
Xe-135m                8.4869E+05  9.3168E-06  4.1561E+19  3.1401E+16
Cs-138                 1.1325E+05  2.6764E-06  1.1680E+19  4.1903E+15
Rb-88                  9.2023E+04  7.6662E-07  5.2462E+18  3.4049E+15

PCS Transport Group Inventory:

                                                Overlying
Time (h) =   0.0250    Atmosphere     Sump        Pool
Noble gases (atoms)    6.9000E+23  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          3.4431E-06  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0250     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   0.0250       Ci           kg         Atoms         Bq
Kr-85                  5.4927E-01  1.4000E-06  9.9188E+18  2.0323E+10
Kr-85m                 1.0132E+01  1.2311E-09  8.7223E+15  3.7487E+11
Kr-87                  1.9345E+01  6.8296E-10  4.7274E+15  7.1577E+11
Kr-88                  2.7431E+01  2.1876E-09  1.4971E+16  1.0150E+12
Xe-133                 7.6532E+01  4.0886E-07  1.8513E+18  2.8317E+12
Xe-135                 2.4480E+01  9.5860E-09  4.2762E+16  9.0576E+11
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Kr-83m	4.7164E+00	2.2859E-10	1.6586E+15	1.7451E+11
Xe-138	5.8755E+01	6.1104E-10	2.6665E+15	2.1739E+12
Xe-131m	4.3573E-01	5.2021E-09	2.3914E+16	1.6122E+10
Xe-133m	2.4317E+00	5.4194E-09	2.4539E+16	8.9974E+10
Xe-135m	1.4630E+01	1.6061E-10	7.1645E+14	5.4132E+11
Cs-138	1.9523E+00	4.6139E-11	2.0134E+14	7.2236E+10
Rb-88	1.5864E+00	1.3215E-11	9.0438E+13	5.8696E+10

Environment Transport Group Inventory:

Time (h) = 0.0250	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.3838E+18	3.4851E+16	1.1895E+19
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	1.1895E-11	1.7390E-13	5.9354E-11

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Kr-85	2.0926E-03	5.3338E-09	3.7789E+16	7.7428E+07
Kr-85m	3.8600E-02	4.6904E-12	3.3231E+13	1.4282E+09
Kr-87	7.3703E-02	2.6020E-12	1.8011E+13	2.7270E+09
Kr-88	1.0451E-01	8.3346E-12	5.7037E+13	3.8669E+09
Xe-133	2.9158E-01	1.5577E-09	7.0533E+15	1.0788E+10
Xe-135	9.3266E-02	3.6522E-11	1.6292E+14	3.4509E+09
Kr-83m	1.7969E-02	8.7092E-13	6.3191E+12	6.6485E+08
Xe-138	2.2385E-01	2.3280E-12	1.0159E+13	8.2825E+09

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Xe-131m                1.6601E-03  1.9819E-11  9.1110E+13  6.1423E+07
Xe-133m                9.2647E-03  2.0647E-11  9.3490E+13  3.4279E+08
Xe-135m                5.5740E-02  6.1190E-13  2.7296E+12  2.0624E+09
Cs-138                 7.4382E-03  1.7578E-13  7.6709E+11  2.7521E+08
Rb-88                  6.0439E-03  5.0350E-14  3.4456E+11  2.2362E+08

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =   0.0250    Atmosphere     Sump        Pool
Noble gases (atoms)    4.5318E+16  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          2.2613E-13  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0250     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.3056

EAB Doses:

Time (h) =   0.3056     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.7553E-01  3.2683E-04  3.4721E-01  1.7880E-01
Accumulated dose (rem)  1.9164E-01  3.2806E-04  3.7728E-01  1.9492E-01

LPZ Doses:

Time (h) =   0.3056     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.1689E-02  4.0384E-05  4.2901E-02  2.2093E-02
Accumulated dose (rem)  2.3680E-02  4.0536E-05  4.6617E-02  2.4085E-02

Control Room Doses:
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Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.1012E-02	2.3702E-03	2.1049E+00	5.4810E-02
Accumulated dose (rem)	3.1161E-02	2.3708E-03	2.1143E+00	5.4965E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Kr-85	3.1856E+04	8.1197E-02	5.7527E+23	1.1787E+15
Kr-85m	5.6264E+05	6.8369E-05	4.8439E+20	2.0818E+16
Kr-87	9.6288E+05	3.3993E-05	2.3530E+20	3.5626E+16
Kr-88	1.4856E+06	1.1848E-04	8.1080E+20	5.4969E+16
Xe-133	4.4320E+06	2.3678E-02	1.0721E+23	1.6399E+17
Xe-135	1.4023E+06	5.4912E-04	2.4495E+21	5.1885E+16
Kr-83m	2.4596E+05	1.1921E-05	8.6497E+19	9.1006E+15
Xe-138	1.4957E+06	1.5555E-05	6.7880E+19	5.5341E+16
Xe-131m	2.5254E+04	3.0150E-04	1.3860E+21	9.3440E+14
Xe-133m	1.4051E+05	3.1315E-04	1.4179E+21	5.1990E+15
Xe-135m	3.9559E+05	4.3428E-06	1.9372E+19	1.4637E+16
Cs-138	7.7614E+05	1.8342E-05	8.0043E+19	2.8717E+16
Rb-88	8.0124E+05	6.6748E-06	4.5678E+19	2.9646E+16

PCS Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.8944E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	2.5017E-05	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Kr-85	6.7142E+00	1.7113E-05	1.2125E+20	2.4842E+11
Kr-85m	1.1859E+02	1.4410E-08	1.0209E+17	4.3877E+12
Kr-87	2.0294E+02	7.1645E-09	4.9593E+16	7.5088E+12
Kr-88	3.1312E+02	2.4971E-08	1.7089E+17	1.1585E+13
Xe-133	9.3411E+02	4.9904E-06	2.2596E+19	3.4562E+13
Xe-135	2.9555E+02	1.1573E-07	5.1627E+17	1.0935E+13
Kr-83m	5.1840E+01	2.5126E-09	1.8230E+16	1.9181E+12
Xe-138	3.1524E+02	3.2784E-09	1.4307E+16	1.1664E+13
Xe-131m	5.3227E+00	6.3546E-08	2.9212E+17	1.9694E+11
Xe-133m	2.9615E+01	6.6001E-08	2.9885E+17	1.0958E+12
Xe-135m	8.3376E+01	9.1530E-10	4.0830E+15	3.0849E+12
Cs-138	1.6358E+02	3.8659E-09	1.6870E+16	6.0526E+12
Rb-88	1.6887E+02	1.4068E-09	9.6273E+15	6.2482E+12

Environment Transport Group Inventory:

Time (h) = 0.3056	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.6441E+18	3.6723E+16	1.4531E+20
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	9.5944E-11	1.3326E-12	5.2727E-09

SG Tube Leakage Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Kr-85	3.6582E-02	9.3242E-08	6.6060E+17	1.3535E+09
Kr-85m	6.4611E-01	7.8511E-11	5.5624E+14	2.3906E+10
Kr-87	1.1057E+00	3.9036E-11	2.7021E+14	4.0911E+10
Kr-88	1.7060E+00	1.3606E-10	9.3107E+14	6.3123E+10
Xe-133	5.0895E+00	2.7190E-08	1.2311E+17	1.8831E+11
Xe-135	1.6103E+00	6.3057E-10	2.8129E+15	5.9581E+10
Kr-83m	2.8245E-01	1.3690E-11	9.9328E+13	1.0451E+10
Xe-138	1.7176E+00	1.7862E-11	7.7949E+13	6.3550E+10
Xe-131m	2.9000E-02	3.4623E-10	1.5916E+15	1.0730E+09
Xe-133m	1.6136E-01	3.5961E-10	1.6283E+15	5.9702E+09
Xe-135m	4.5427E-01	4.9870E-12	2.2246E+13	1.6808E+10
Cs-138	8.9128E-01	2.1063E-11	9.1917E+13	3.2977E+10
Rb-88	9.2009E-01	7.6650E-12	5.2454E+13	3.4043E+10

Control Room Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	7.9171E+17	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	2.8728E-11	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter

```
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.3333

EAB Doses:

Time (h) =   0.3333     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.6573E-02  5.2293E-05  3.4381E-02  1.7105E-02
Accumulated dose (rem)  2.0822E-01  3.8036E-04  4.1166E-01  2.1203E-01

LPZ Doses:

Time (h) =   0.3333     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.0478E-03  6.4614E-06  4.2481E-03  2.1136E-03
Accumulated dose (rem)  2.5728E-02  4.6998E-05  5.0865E-02  2.6199E-02

Control Room Doses:

Time (h) =   0.3333     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        5.4858E-03  5.8609E-04  3.8527E-01  1.1457E-02
Accumulated dose (rem)  3.6647E-02  2.9569E-03  2.4995E+00  6.6423E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.3333       Ci           kg         Atoms         Bq
Kr-85                  3.1856E+04  8.1195E-02  5.7526E+23  1.1787E+15
Kr-85m                 5.6022E+05  6.8075E-05  4.8230E+20  2.0728E+16
Kr-87                  9.4841E+05  3.3482E-05  2.3176E+20  3.5091E+16
Kr-88                  1.4756E+06  1.1768E-04  8.0531E+20  5.4597E+16
Xe-133                 4.4313E+06  2.3674E-02  1.0719E+23  1.6396E+17
Xe-135                 1.4001E+06  5.4826E-04  2.4457E+21  5.1804E+16
Kr-83m                 2.4339E+05  1.1797E-05  8.5591E+19  9.0053E+15
Xe-138                 1.3787E+06  1.4338E-05  6.2570E+19  5.1012E+16
Xe-131m                2.5252E+04  3.0148E-04  1.3859E+21  9.3432E+14
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Xe-133m	1.4046E+05	3.1303E-04	1.4174E+21	5.1970E+15
Xe-135m	3.6683E+05	4.0270E-06	1.7964E+19	1.3573E+16
Cs-138	7.9981E+05	1.8902E-05	8.2485E+19	2.9593E+16
Rb-88	8.4538E+05	7.0425E-06	4.8195E+19	3.1279E+16

PCS Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.8939E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	2.5944E-05	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Kr-85	7.3251E+00	1.8671E-05	1.3228E+20	2.7103E+11
Kr-85m	1.2882E+02	1.5654E-08	1.1090E+17	4.7664E+12
Kr-87	2.1808E+02	7.6992E-09	5.3294E+16	8.0691E+12
Kr-88	3.3931E+02	2.7060E-08	1.8518E+17	1.2554E+13
Xe-133	1.0190E+03	5.4437E-06	2.4649E+19	3.7702E+13
Xe-135	3.2195E+02	1.2607E-07	5.6238E+17	1.1912E+13
Kr-83m	5.5966E+01	2.7126E-09	1.9681E+16	2.0708E+12
Xe-138	3.1703E+02	3.2971E-09	1.4388E+16	1.1730E+13
Xe-131m	5.8066E+00	6.9324E-08	3.1869E+17	2.1485E+11
Xe-133m	3.2298E+01	7.1981E-08	3.2592E+17	1.1950E+12
Xe-135m	8.4352E+01	9.2600E-10	4.1308E+15	3.1210E+12
Cs-138	1.8392E+02	4.3464E-09	1.8967E+16	6.8049E+12
Rb-88	1.9439E+02	1.6194E-09	1.1082E+16	7.1925E+12

Environment Transport Group Inventory:

Time (h) = 0.3333	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	6.3387E+18	1.2190E+17	1.5852E+20
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	2.3855E-10	4.5876E-12	5.9658E-09

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Kr-85	3.8583E-02	9.8342E-08	6.9674E+17	1.4276E+09
Kr-85m	6.7853E-01	8.2450E-11	5.8415E+14	2.5106E+10
Kr-87	1.1487E+00	4.0553E-11	2.8071E+14	4.2501E+10
Kr-88	1.7872E+00	1.4253E-10	9.7537E+14	6.6126E+10
Xe-133	5.3671E+00	2.8673E-08	1.2983E+17	1.9858E+11
Xe-135	1.6958E+00	6.6404E-10	2.9622E+15	6.2744E+10
Kr-83m	2.9478E-01	1.4288E-11	1.0367E+14	1.0907E+10
Xe-138	1.6699E+00	1.7366E-11	7.5784E+13	6.1785E+10
Xe-131m	3.0585E-02	3.6514E-10	1.6786E+15	1.1316E+09
Xe-133m	1.7012E-01	3.7914E-10	1.7167E+15	6.2945E+09
Xe-135m	4.4430E-01	4.8774E-12	2.1757E+13	1.6439E+10
Cs-138	9.6871E-01	2.2893E-11	9.9903E+13	3.5842E+10
Rb-88	1.0239E+00	8.5297E-12	5.8372E+13	3.7884E+10

Control Room Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	8.3497E+17	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	3.1423E-11	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Pathway

```
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    2.0000

EAB Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        6.9580E-01  2.9080E-03  1.6036E+00  7.2955E-01
Accumulated dose (rem)  9.0402E-01  3.2884E-03  2.0152E+00  9.4158E-01

LPZ Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        8.5975E-02  3.5932E-04  1.9814E-01  9.0145E-02
Accumulated dose (rem)  1.1170E-01  4.0632E-04  2.4901E-01  1.1634E-01

Control Room Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        7.8066E-02  6.9119E-03  5.6017E+00  1.5654E-01
Accumulated dose (rem)  1.1471E-01  9.8688E-03  8.1013E+00  2.2296E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   2.0000       Ci           kg         Atoms         Bq
Kr-85                  3.1820E+04  8.1104E-02  5.7461E+23  1.1773E+15
Kr-85m                 4.3238E+05  5.2540E-05  3.7224E+20  1.5998E+16
Kr-87                  3.8190E+05  1.3483E-05  9.3326E+19  1.4130E+16
Kr-88                  9.8130E+05  7.8258E-05  5.3555E+20  3.6308E+16
Xe-133                 4.3870E+06  2.3437E-02  1.0612E+23  1.6232E+17
Xe-135                 1.2408E+06  4.8587E-04  2.1674E+21  4.5909E+16
Kr-83m                 1.2931E+05  6.2674E-06  4.5473E+19  4.7844E+15
Xe-138                 1.0340E+04  1.0753E-07  4.6925E+17  3.8257E+14
Xe-131m                2.5121E+04  2.9991E-04  1.3787E+21  9.2948E+14
Xe-133m                1.3724E+05  3.0587E-04  1.3849E+21  5.0780E+15
Xe-135m                3.9366E+03  4.3215E-08  1.9278E+17  1.4565E+14
Cs-138                 2.1195E+05  5.0088E-06  2.1858E+19  7.8420E+15
Rb-88                  1.1045E+06  9.2010E-06  6.2965E+19  4.0865E+16

PCS Transport Group Inventory:

                                                Overlying
Time (h) =   2.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    6.8671E+23  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          1.4210E-05  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   2.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
```

```
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   2.0000       Ci           kg          Atoms         Bq
Kr-85                  4.4162E+01  1.1256E-04  7.9749E+20  1.6340E+12
Kr-85m                 6.0010E+02  7.2920E-08  5.1663E+17  2.2204E+13
Kr-87                  5.3003E+02  1.8712E-08  1.2953E+17  1.9611E+13
Kr-88                  1.3619E+03  1.0861E-07  7.4328E+17  5.0391E+13
Xe-133                 6.0887E+03  3.2528E-05  1.4728E+20  2.2528E+14
Xe-135                 1.7221E+03  6.7433E-07  3.0081E+18  6.3716E+13
Kr-83m                 1.7947E+02  8.6984E-09  6.3112E+16  6.6402E+12
Xe-138                 1.4350E+01  1.4924E-10  6.5127E+14  5.3096E+11
Xe-131m                3.4865E+01  4.1624E-07  1.9135E+18  1.2900E+12
Xe-133m                1.9048E+02  4.2451E-07  1.9221E+18  7.0477E+12
Xe-135m                5.4635E+00  5.9978E-11  2.6755E+14  2.0215E+11
Cs-138                 2.9399E+02  6.9478E-09  3.0319E+16  1.0878E+13
Rb-88                  1.5327E+03  1.2769E-08  8.7379E+16  5.6710E+13

Environment Transport Group Inventory:

                        Present     Release     Integral
Time (h) =   2.0000     Release     Rate/s      Release
Noble gases (atoms)    9.5264E+18  1.3231E+17  9.5307E+20
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          1.9704E-10  2.7366E-12  1.9716E-08

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) =   2.0000       Ci           kg          Atoms         Bq
Cs-138                 9.8931E-02  2.3380E-12  1.0203E+13  3.6605E+09
Rb-88                  1.6199E-01  1.3494E-12  9.2347E+12  5.9935E+09

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          3.6875E-12

Control Room Unfiltered Inleakage Transport Group Inventory:
```

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	5.9146E-03	1.5075E-08	1.0681E+17	2.1884E+08
Kr-85m	8.0370E-02	9.7660E-12	6.9191E+13	2.9737E+09
Kr-87	7.0986E-02	2.5061E-12	1.7347E+13	2.6265E+09
Kr-88	1.8240E-01	1.4546E-11	9.9546E+13	6.7488E+09
Xe-133	8.1544E-01	4.3564E-09	1.9726E+16	3.0171E+10
Xe-135	2.3063E-01	9.0312E-11	4.0287E+14	8.5334E+09
Kr-83m	2.4035E-02	1.1650E-12	8.4524E+12	8.8931E+08
Xe-138	1.9219E-03	1.9988E-14	8.7223E+10	7.1111E+07
Xe-131m	4.6694E-03	5.5747E-11	2.5627E+14	1.7277E+08
Xe-133m	2.5511E-02	5.6854E-11	2.5743E+14	9.4389E+08
Xe-135m	7.3172E-04	8.0327E-15	3.5833E+10	2.7074E+07
Cs-138	3.6022E-03	8.5130E-14	3.7149E+11	1.3328E+08
Rb-88	7.9783E-02	6.6465E-13	4.5484E+12	2.9520E+09

Control Room Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.2764E+17	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	7.4978E-13	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Cs-138	9.8567E-02	2.3294E-12	1.0165E+13	3.6470E+09
Rb-88	1.2225E-01	1.0184E-12	6.9695E+12	4.5233E+09

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	3.3478E-12

Control Room Unfiltered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Cs-138	9.8931E-02	2.3380E-12	1.0203E+13	3.6605E+09
Rb-88	1.6199E-01	1.3494E-12	9.2347E+12	5.9935E+09

Control Room Filtered Makeup Transport Group Inventory:

```
                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          3.6875E-12

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) =   2.0000       Ci           kg         Atoms         Bq
Cs-138                 1.9750E-01  4.6674E-12  2.0368E+13  7.3075E+09
Rb-88                  2.8424E-01  2.3679E-12  1.6204E+13  1.0517E+10

Detailed model information at time (H) =    8.0000

EAB Doses:

Time (h) =   8.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        8.4080E-01  2.6325E-03  2.1538E+00  8.8164E-01
Accumulated dose (rem)  1.7448E+00  5.9208E-03  4.1690E+00  1.8232E+00

LPZ Doses:

Time (h) =   8.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        4.7266E-02  1.4799E-04  1.2108E-01  4.9562E-02
Accumulated dose (rem)  1.5897E-01  5.5430E-04  3.7008E-01  1.6591E-01

Control Room Doses:

Time (h) =   8.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.9442E-02  1.2169E-03  2.1551E+00  4.9220E-02
Accumulated dose (rem)  1.4416E-01  1.1086E-02  1.0256E+01  2.7218E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Kr-85                  3.1689E+04  8.0770E-02  5.7224E+23  1.1725E+15
Kr-85m                 1.7017E+05  2.0679E-05  1.4650E+20  6.2965E+15
Kr-87                  1.4448E+04  5.1008E-07  3.5308E+18  5.3459E+14
Kr-88                  2.2595E+05  1.8020E-05  1.2331E+20  8.3602E+15
Xe-133                 4.2311E+06  2.2604E-02  1.0235E+23  1.5655E+17
Xe-135                 7.8204E+05  3.0623E-04  1.3661E+21  2.8935E+16
Kr-83m                 1.3269E+04  6.4312E-07  4.6662E+18  4.9095E+14
Xe-138                 2.3163E-04  2.4089E-15  1.0512E+10  8.5704E+06
Xe-131m                2.4655E+04  2.9435E-04  1.3531E+21  9.1224E+14
Xe-133m                1.2627E+05  2.8140E-04  1.2742E+21  4.6719E+15
Xe-135m                3.2035E-04  3.5167E-15  1.5688E+10  1.1853E+07
Cs-138                 9.4496E+01  2.2332E-09  9.7453E+15  3.4963E+12
Rb-88                  2.5825E+05  2.1514E-06  1.4723E+19  9.5554E+15

PCS Transport Group Inventory:

                                                Overlying
Time (h) =   8.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    6.7887E+23  0.0000E+00  0.0000E+00
```

```
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          2.1537E-06  0.0000E+00  0.0000E+00

                      Deposition Recirculating
Time (h) =   8.0000    Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Kr-85                  1.7631E+02  4.4939E-04  3.1839E+21  6.5235E+12
Kr-85m                 9.4682E+02  1.1505E-07  8.1512E+17  3.5032E+13
Kr-87                  8.0388E+01  2.8380E-09  1.9645E+16  2.9744E+12
Kr-88                  1.2571E+03  1.0026E-07  6.8609E+17  4.6515E+13
Xe-133                 2.3541E+04  1.2577E-04  5.6945E+20  8.7101E+14
Xe-135                 4.3511E+03  1.7038E-06  7.6005E+18  1.6099E+14
Kr-83m                 7.3826E+01  3.5782E-09  2.5962E+16  2.7316E+12
Xe-138                 1.2888E-06  1.3403E-17  5.8488E+07  4.7684E+04
Xe-131m                1.3718E+02  1.6377E-06  7.5286E+18  5.0755E+12
Xe-133m                7.0253E+02  1.5657E-06  7.0893E+18  2.5994E+13
Xe-135m                1.7824E-06  1.9566E-17  8.7283E+07  6.5947E+04
Cs-138                 5.2550E-01  1.2419E-11  5.4195E+13  1.9444E+10
Rb-88                  1.4368E+03  1.1970E-08  8.1914E+16  5.3163E+13

Environment Transport Group Inventory:

                        Present     Release     Integral
Time (h) =   8.0000     Release     Rate/s      Release
Noble gases (atoms)    9.4169E+18  1.3079E+17  3.7771E+21
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          2.9865E-11  4.1480E-13  1.1982E-08

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Cs-138                 2.0908E-04  4.9411E-15  2.1562E+10  7.7360E+06
Rb-88                  3.5556E-02  2.9620E-13  2.0270E+12  1.3156E+09

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
```

```
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          3.0114E-13

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Kr-85                 4.5449E-03  1.1584E-08  8.2073E+16  1.6816E+08
Kr-85m                2.4407E-02  2.9658E-12  2.1012E+13  9.0305E+08
Kr-87                 2.0722E-03  7.3157E-14  5.0639E+11  7.6672E+07
Kr-88                 3.2406E-02  2.5844E-12  1.7686E+13  1.1990E+09
Xe-133                6.0683E-01  3.2419E-09  1.4679E+16  2.2453E+10
Xe-135                1.1216E-01  4.3921E-11  1.9592E+14  4.1500E+09
Kr-83m                1.9031E-03  9.2238E-14  6.6924E+11  7.0413E+07
Xe-131m               3.5361E-03  4.2216E-11  1.9407E+14  1.3084E+08
Xe-133m               1.8110E-02  4.0360E-11  1.8275E+14  6.7005E+08
Cs-138                9.3871E-07  2.2184E-17  9.6809E+07  3.4732E+04
Rb-88                 1.3666E-02  1.1385E-13  7.7911E+11  5.0565E+08

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =   8.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    9.7365E+16  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          1.1387E-13  0.0000E+00  0.0000E+00

                       Recirculating Filter Inventory

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Cs-138                5.6206E-05  1.3283E-15  5.7965E+09  2.0796E+06
Rb-88                 1.4408E-02  1.2003E-13  8.2140E+11  5.3310E+08

                       Deposition Recirculating
Time (h) =   8.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  1.2136E-13

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) =   8.0000       Ci           kg         Atoms         Bq
```

```
Cs-138                 2.0908E-04  4.9411E-15  2.1562E+10  7.7360E+06
Rb-88                  3.5556E-02  2.9620E-13  2.0270E+12  1.3156E+09

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          3.0114E-13

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Cs-138                 2.6529E-04  6.2694E-15  2.7359E+10  9.8156E+06
Rb-88                  4.9964E-02  4.1623E-13  2.8484E+12  1.8487E+09

Detailed model information at time (H) =   24.0000

EAB Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.1960E-05  7.1035E-09  2.7987E-05  1.2078E-05
Accumulated dose (rem)  1.7448E+00  5.9208E-03  4.1690E+00  1.8232E+00

LPZ Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        4.5267E-07  2.6885E-10  1.0593E-06  4.5711E-07
Accumulated dose (rem)  1.5897E-01  5.5430E-04  3.7008E-01  1.6591E-01

Control Room Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        9.7583E-04  3.8170E-05  7.7307E-02  1.6055E-03
Accumulated dose (rem)  1.4513E-01  1.1124E-02  1.0334E+01  2.7379E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =  24.0000       Ci           kg         Atoms         Bq
Kr-85                  3.1687E+04  8.0764E-02  5.7221E+23  1.1724E+15
Kr-85m                 1.4315E+04  1.7395E-06  1.2324E+19  5.2965E+14
Kr-87                  2.3566E+00  8.3197E-11  5.7589E+14  8.7194E+10
Kr-88                  4.5506E+03  3.6291E-07  2.4835E+18  1.6837E+14
Xe-133                 3.8838E+06  2.0749E-02  9.3950E+22  1.4370E+17
Xe-135                 2.3087E+05  9.0404E-05  4.0328E+20  8.5421E+15
Kr-83m                 3.0966E+01  1.5009E-09  1.0890E+16  1.1457E+12
Xe-131m                2.3716E+04  2.8314E-04  1.3016E+21  8.7749E+14
Xe-133m                1.0223E+05  2.2783E-04  1.0316E+21  3.7824E+15
Cs-138                 1.0014E-07  2.3666E-18  1.0327E+07  3.7052E+03
Rb-88                  5.2012E+03  4.3329E-08  2.9652E+17  1.9244E+14

PCS Transport Group Inventory:
```

```
                                                Overlying
Time (h) =  24.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    6.6891E+23  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          4.3329E-08  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =  24.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Transport Group Inventory:

                        Present     Release     Integral
Time (h) =  24.0000     Release     Rate/s      Release
Noble gases (atoms)    1.4036E-01  1.9494E-03  3.7218E+21
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          4.4911E-33  6.2376E-35  2.4108E-10

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          5.2363E-24

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
```

```
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =  24.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    2.8818E+00  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          9.0236E-32  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =  24.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  1.4194E-24

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          5.2363E-24

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =   96.0000

EAB Doses:

Time (h) =  96.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        8.1276E-23  6.0467E-27  2.5006E-22  8.1375E-23
Accumulated dose (rem)  1.7448E+00  5.9208E-03  4.1690E+00  1.8232E+00

LPZ Doses:

Time (h) =  96.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.3073E-24  9.7264E-29  4.0223E-24  1.3090E-24
Accumulated dose (rem)  1.5897E-01  5.5430E-04  3.7008E-01  1.6591E-01

Control Room Doses:

Time (h) =  96.0000     Whole Body    Thyroid      Skin       TEDE
```

Delta dose (rem)	3.9785E-21	1.5257E-23	4.1439E-19	4.2302E-21
Accumulated dose (rem)	1.4513E-01	1.1124E-02	1.0334E+01	2.7379E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	3.1670E+04	8.0722E-02	5.7190E+23	1.1718E+15
Kr-85m	2.0788E-01	2.5260E-11	1.7896E+14	7.6914E+09
Kr-88	1.0625E-04	8.4733E-15	5.7986E+10	3.9312E+06
Xe-133	2.6336E+06	1.4070E-02	6.3706E+22	9.7443E+16
Xe-135	9.5272E+02	3.7307E-07	1.6642E+18	3.5251E+13
Xe-131m	1.9914E+04	2.3774E-04	1.0929E+21	7.3681E+14
Xe-133m	3.9521E+04	8.8077E-05	3.9881E+20	1.4623E+15
Rb-88	1.2144E-04	1.0117E-15	6.9231E+09	4.4932E+06

PCS Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.3710E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	1.0117E-15	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Transport Group Inventory:

Time (h) = 96.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	0.0000E+00	0.0000E+00	3.5448E+21
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	5.6288E-18

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00

```
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =  96.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =  96.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00
```

Detailed model information at time (H) = 720.0000

EAB Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.6010E-97	6.3002-109	5.3722E-97	1.6010E-97
Accumulated dose (rem)	1.7448E+00	5.9208E-03	4.1690E+00	1.8232E+00

LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	7.5446-100	2.9689-111	2.5316E-99	7.5446-100
Accumulated dose (rem)	1.5897E-01	5.5430E-04	3.7008E-01	1.6591E-01

Control Room Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	5.2247E-96	1.0598-105	5.9350E-94	5.2247E-96
Accumulated dose (rem)	1.4513E-01	1.1124E-02	1.0334E+01	2.7379E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	3.1525E+04	8.0351E-02	5.6928E+23	1.1664E+15
Xe-133	8.5687E+04	4.5777E-04	2.0728E+21	3.1704E+15
Xe-131m	4.3796E+03	5.2287E-05	2.4037E+20	1.6205E+14
Xe-133m	1.0464E+01	2.3320E-08	1.0559E+17	3.8716E+11

PCS Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.7159E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Transport Group Inventory:

Time (h) = 720.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	0.0000E+00	0.0000E+00	3.1803E+21
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

```
                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Transport Group Inventory:

                                                Overlying
Time (h) = 720.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) = 720.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
```

```
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

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Transport Group Totals in Model:
--------------------------------
Noble Gases (atoms)    5.7477E+23
Elemental I (atoms)    0.0000E+00
Organic I   (atoms)    0.0000E+00
Aerosols    (kg)       0.0000E+00
--------------------------------

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#####################################################################
                              I-131 Summary
#####################################################################
```

Time (hr)	PCS I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	0.0000E+00	0.0000E+00	0.0000E+00
0.000	0.0000E+00	0.0000E+00	0.0000E+00
0.025	0.0000E+00	0.0000E+00	0.0000E+00
0.300	0.0000E+00	0.0000E+00	0.0000E+00
0.306	0.0000E+00	0.0000E+00	0.0000E+00
0.333	0.0000E+00	0.0000E+00	0.0000E+00
0.600	0.0000E+00	0.0000E+00	0.0000E+00
0.860	0.0000E+00	0.0000E+00	0.0000E+00
1.120	0.0000E+00	0.0000E+00	0.0000E+00
1.380	0.0000E+00	0.0000E+00	0.0000E+00
1.640	0.0000E+00	0.0000E+00	0.0000E+00
1.900	0.0000E+00	0.0000E+00	0.0000E+00
2.000	0.0000E+00	0.0000E+00	0.0000E+00
2.260	0.0000E+00	0.0000E+00	0.0000E+00
2.520	0.0000E+00	0.0000E+00	0.0000E+00
2.780	0.0000E+00	0.0000E+00	0.0000E+00
3.040	0.0000E+00	0.0000E+00	0.0000E+00
3.300	0.0000E+00	0.0000E+00	0.0000E+00
3.560	0.0000E+00	0.0000E+00	0.0000E+00
3.820	0.0000E+00	0.0000E+00	0.0000E+00
4.080	0.0000E+00	0.0000E+00	0.0000E+00
4.340	0.0000E+00	0.0000E+00	0.0000E+00
4.600	0.0000E+00	0.0000E+00	0.0000E+00
4.860	0.0000E+00	0.0000E+00	0.0000E+00
5.120	0.0000E+00	0.0000E+00	0.0000E+00
5.380	0.0000E+00	0.0000E+00	0.0000E+00
5.640	0.0000E+00	0.0000E+00	0.0000E+00
5.900	0.0000E+00	0.0000E+00	0.0000E+00
6.160	0.0000E+00	0.0000E+00	0.0000E+00
6.420	0.0000E+00	0.0000E+00	0.0000E+00
6.680	0.0000E+00	0.0000E+00	0.0000E+00
6.940	0.0000E+00	0.0000E+00	0.0000E+00
7.200	0.0000E+00	0.0000E+00	0.0000E+00
7.460	0.0000E+00	0.0000E+00	0.0000E+00
7.720	0.0000E+00	0.0000E+00	0.0000E+00
7.980	0.0000E+00	0.0000E+00	0.0000E+00
8.000	0.0000E+00	0.0000E+00	0.0000E+00
8.260	0.0000E+00	0.0000E+00	0.0000E+00
8.520	0.0000E+00	0.0000E+00	0.0000E+00
8.780	0.0000E+00	0.0000E+00	0.0000E+00
9.040	0.0000E+00	0.0000E+00	0.0000E+00
9.300	0.0000E+00	0.0000E+00	0.0000E+00
9.560	0.0000E+00	0.0000E+00	0.0000E+00

9.820	0.0000E+00	0.0000E+00	0.0000E+00
10.080	0.0000E+00	0.0000E+00	0.0000E+00
24.000	0.0000E+00	0.0000E+00	0.0000E+00
96.000	0.0000E+00	0.0000E+00	0.0000E+00
720.000	0.0000E+00	0.0000E+00	0.0000E+00

##
Cumulative Dose Summary
##

	EAB		LPZ		Control Room	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	3.1978E-09	0.0000E+00	3.9513E-10	0.0000E+00	1.1910E-15
0.000	1.7533E-11	3.1976E-05	2.1664E-12	3.9511E-06	2.2106E-14	7.9421E-10
0.025	1.2308E-06	1.6121E-02	1.5209E-07	1.9920E-03	6.3164E-07	1.5485E-04
0.300	3.1779E-04	1.9149E-01	3.9267E-05	2.3661E-02	2.2595E-03	5.2768E-02
0.306	3.2806E-04	1.9492E-01	4.0536E-05	2.4085E-02	2.3708E-03	5.4965E-02
0.333	3.8036E-04	2.1203E-01	4.6998E-05	2.6199E-02	2.9569E-03	6.6423E-02
0.600	9.4578E-04	3.6879E-01	1.1686E-04	4.5568E-02	6.8053E-03	1.4344E-01
0.860	1.5083E-03	5.0484E-01	1.8637E-04	6.2380E-02	8.3380E-03	1.7792E-01
1.120	2.0198E-03	6.2509E-01	2.4957E-04	7.7237E-02	9.0336E-03	1.9606E-01
1.380	2.4651E-03	7.3149E-01	3.0459E-04	9.0384E-02	9.4045E-03	2.0712E-01
1.640	2.8471E-03	8.2620E-01	3.5180E-04	1.0209E-01	9.6399E-03	2.1487E-01
1.900	3.1748E-03	9.1115E-01	3.9228E-04	1.1258E-01	9.8123E-03	2.2092E-01
2.000	3.2884E-03	9.4158E-01	4.0632E-04	1.1634E-01	9.8688E-03	2.2296E-01
2.260	3.5563E-03	1.0156E+00	4.2138E-04	1.2051E-01	9.9957E-03	2.2765E-01
2.520	3.7909E-03	1.0833E+00	4.3456E-04	1.2431E-01	1.0101E-02	2.3162E-01
2.780	3.9984E-03	1.1455E+00	4.4623E-04	1.2781E-01	1.0192E-02	2.3513E-01
3.040	4.1840E-03	1.2029E+00	4.5666E-04	1.3104E-01	1.0273E-02	2.3831E-01
3.300	4.3514E-03	1.2563E+00	4.6608E-04	1.3404E-01	1.0348E-02	2.4124E-01
3.560	4.5037E-03	1.3060E+00	4.7464E-04	1.3683E-01	1.0416E-02	2.4397E-01
3.820	4.6431E-03	1.3525E+00	4.8248E-04	1.3944E-01	1.0479E-02	2.4652E-01
4.080	4.7715E-03	1.3960E+00	4.8969E-04	1.4189E-01	1.0538E-02	2.4890E-01
4.340	4.8901E-03	1.4369E+00	4.9636E-04	1.4419E-01	1.0593E-02	2.5115E-01
4.600	5.0001E-03	1.4754E+00	5.0254E-04	1.4635E-01	1.0645E-02	2.5326E-01
4.860	5.1024E-03	1.5117E+00	5.0830E-04	1.4839E-01	1.0693E-02	2.5526E-01
5.120	5.1978E-03	1.5459E+00	5.1366E-04	1.5031E-01	1.0739E-02	2.5713E-01
5.380	5.2868E-03	1.5782E+00	5.1866E-04	1.5213E-01	1.0781E-02	2.5891E-01
5.640	5.3700E-03	1.6087E+00	5.2334E-04	1.5385E-01	1.0821E-02	2.6058E-01
5.900	5.4478E-03	1.6377E+00	5.2771E-04	1.5547E-01	1.0858E-02	2.6216E-01
6.160	5.5206E-03	1.6651E+00	5.3181E-04	1.5701E-01	1.0893E-02	2.6365E-01
6.420	5.5889E-03	1.6910E+00	5.3564E-04	1.5847E-01	1.0926E-02	2.6507E-01
6.680	5.6528E-03	1.7157E+00	5.3923E-04	1.5986E-01	1.0957E-02	2.6640E-01
6.940	5.7127E-03	1.7391E+00	5.4260E-04	1.6118E-01	1.0985E-02	2.6767E-01
7.200	5.7689E-03	1.7613E+00	5.4576E-04	1.6243E-01	1.1012E-02	2.6887E-01
7.460	5.8216E-03	1.7825E+00	5.4872E-04	1.6362E-01	1.1038E-02	2.7001E-01
7.720	5.8710E-03	1.8026E+00	5.5150E-04	1.6475E-01	1.1062E-02	2.7108E-01
7.980	5.9174E-03	1.8218E+00	5.5411E-04	1.6582E-01	1.1084E-02	2.7211E-01
8.000	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1086E-02	2.7218E-01
8.260	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1103E-02	2.7294E-01
8.520	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1113E-02	2.7335E-01
8.780	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1118E-02	2.7356E-01
9.040	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1121E-02	2.7367E-01
9.300	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1122E-02	2.7373E-01
9.560	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1123E-02	2.7376E-01
9.820	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1124E-02	2.7377E-01
10.080	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1124E-02	2.7378E-01
24.000	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1124E-02	2.7379E-01
96.000	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1124E-02	2.7379E-01
720.000	5.9208E-03	1.8232E+00	5.5430E-04	1.6591E-01	1.1124E-02	2.7379E-01

##
Worst Two-Hour Dose
(Provided for Dose Location 1)
##

EAB

Time (hr)	Whole Body (rem)	Thyroid (rem)	Skin (rem)	TEDE (rem)
0.0	9.0402E-01	3.2884E-03	2.0152E+00	9.4158E-01

##

```
                    30 Day Control Room Skin Dose
#################################################################

Control Room
   Time      Skin
   (hr)      (rem)
  720.0   1.0334E+01
```

Attachment 5 Secondary Side Release FCM Noble Gas Dose

```
#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:33:49
#######################################################################

#######################################################################
                    File information
#######################################################################

Plant file name           = AST/CRE/pal_CRE_FCM_sec_ng_db_ast.psf
Inventory file name       = AST/CRE/palisades_loca_db_ast.nif
Scenario file name        = AST/CRE/pal_CRE_FCM_sec_ng_db_ast.psf
Release file name         = AST/CRE/pal_cre_fcm_sec_ng.rft
Dose conversion file name = AST/CRE/nai-1101-001rev0.dcf




     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #


*RADTRAD-NAI 1.1a(QA)
*18 May 2006 13:33:35
** Palisades CRE Design Basis AST
** FCM Secondary Release Noble Gas Activity Dose
**
*Nuclide inventory file
AST/CRE/palisades_loca_db_ast.nif
*Plant power
27.5706
*Compartments
3
*Compartment 1:
PCS
   3
432976.8
   0
   0
   0
   0
*Compartment 2:
Environment
   2
2e+20
   0
   0
   0
   0
*Compartment 3:
Control Room
   1
35923
   0
   1
   0
   0
*Pathways
   5
*Pathway 1:
SG Tube Leakage
   1
   2
   2
*Pathway 2:
```

```
Control Room Unfiltered Makeup
   2
   3
   2
*Pathway 3:
Control Room Filtered Makeup
   2
   3
   2
*Pathway 4:
Control Room Unfiltered Inleakage
   2
   3
   2
*Pathway 5:
Control Room Exhaust
   3
   2
   2
*Sources
   3
   1 1
   2 0
   3 0
*dose conversion factors filename
AST/CRE/nai-1101-001rev0.dcf
*release fraction and timing filename
AST/CRE/pal_cre_fcm_sec_ng.rft
0
   1
   1
*Iodine
0 0.97 0.03
*Overlying pool
*aerosol model
   0
*elemental model
   0
*organic model
   0
*pH tracking
   0
*Compartment detail
*Compartment 1:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Compartment 2:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Compartment 3:
   1
*spray model
0
0
0
*filter model
   1
```

```
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*deposition model
0
0
*Pathways:
*Pathway 1
*filter efficiency model
   1
   3
0 5.005 0 0 0
8 0 0 0 0
720 0 0 0 0
*Pathway 2
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 0 0 0 0
720 0 0 0 0
*Pathway 3
*filter efficiency model
   1
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*Pathway 4
*filter efficiency model
   1
   3
0 0 0 0 0
0.3333 10 0 0 0
720 10 0 0 0
*Pathway 5
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 1423.6 0 0 0
720 1423.6 0 0 0
*x/q tables
   4
EAB
   2
0 0.000539
720 0.000539
LPZ
   6
0 6.66e-05
2 3.03e-05
8 2.04e-05
24 8.67e-06
96 2.54e-06
720 2.54e-06
Control Room Unfiltered
   7
0 0.0211
0.305556 0.0165
2 0.0134
8 0.0054
24 0.00403
96 0.00298
720 0.00298
Control Room Filtered
   7
0 0.000796
0.305556 0.000736
2 0.000642
```

```
8 0.000243
24 0.000175
96 0.000128
720 0.000128
*dose locations
   3
*location name, compartment number and x/q table
EAB
   2
   1
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
LPZ
   2
   2
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
Control Room
   3
   0
*br model
   1
   2
0 0.00035
720 0.00035
*of model
   1
   4
0 1
24 0.6
96 0.4
720 0.4
*location x/q input to be included
   1
*number of intake combinations
   3
*intake combinations
2 1 3
3 1 4
4 1 3
*time step count
   3
0 1e-06
0.001 0.02
720 0.02
*show plant, scenario, event, step, model
   1
   1
   1
   0
   1

 ######################################################################
```

```
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:33:49
######################################################################

######################################################################
                      Plant Description
######################################################################

Number of Nuclides = 107

Inventory Power =   2.7030E+03 MWth
Plant Power Level =   2.7571E+01 MWth

Number of compartments    =   3

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00)
Name: PCS
Compartment volume =   4.3298E+05 (Cubic feet)
Pathways into and out of compartment  1
    Pathway to compartment number   2: SG Tube Leakage

Compartment number  2
Name: Environment
Pathways into and out of compartment  2
    Pathway to compartment number   3: Control Room Unfiltered Makeup
    Pathway to compartment number   3: Control Room Filtered Makeup
    Pathway to compartment number   3: Control Room Unfiltered Inleakage
    Pathway from compartment number 1: SG Tube Leakage
    Pathway from compartment number 3: Control Room Exhaust

Compartment number  3
Name: Control Room
Compartment volume =   3.5923E+04 (Cubic feet)
Removal devices within compartment:
     Filter(s)
Pathways into and out of compartment  3
    Pathway to compartment number   2: Control Room Exhaust
    Pathway from compartment number 2: Control Room Unfiltered Makeup
    Pathway from compartment number 2: Control Room Filtered Makeup
    Pathway from compartment number 2: Control Room Unfiltered Inleakage

Total number of pathways =   5


######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:33:49
######################################################################

######################################################################
                      Scenario Description
######################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Iodine fractions
     Aerosol     =   0.0000E+00
     Elemental   =   9.7000E-01
     Organic     =   3.0000E-02

COMPARTMENT DATA

Compartment number   1: PCS

Compartment number   2: Environment

Compartment number   3: Control Room

     Compartment Filter Data

      Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
```

0.0000E+00	0.0000E+00	9.9000E+01	9.9000E+01	9.9000E+01
3.3330E-01	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01

PATHWAY DATA

Pathway number 1: SG Tube Leakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.0050E+00	0.0000E+00	0.0000E+00	0.0000E+00
8.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 2: Control Room Unfiltered Makeup

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	3.8420E+02	0.0000E+00	0.0000E+00	0.0000E+00
2.5000E-02	6.6000E+02	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 3: Control Room Filtered Makeup

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	9.9000E+01	9.9000E+01	9.9000E+01
3.3330E-01	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01

Pathway number 4: Control Room Unfiltered Inleakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Control Room Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	3.8420E+02	0.0000E+00	0.0000E+00	0.0000E+00
2.5000E-02	6.6000E+02	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00

X/Q DATA

X/Q table 1: EAB

Time (hr)	X/Q (s * m^-3)
0.0000E+00	5.3900E-04
7.2000E+02	5.3900E-04

X/Q table 2: LPZ

Time (hr)	X/Q (s * m^-3)
0.0000E+00	6.6600E-05
2.0000E+00	3.0300E-05
8.0000E+00	2.0400E-05
2.4000E+01	8.6700E-06
9.6000E+01	2.5400E-06
7.2000E+02	2.5400E-06

```
X/Q table   3: Control Room Unfiltered
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          2.1100E-02
       3.0556E-01          1.6500E-02
       2.0000E+00          1.3400E-02
       8.0000E+00          5.4000E-03
       2.4000E+01          4.0300E-03
       9.6000E+01          2.9800E-03
       7.2000E+02          2.9800E-03

X/Q table   4: Control Room Filtered
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          7.9600E-04
       3.0556E-01          7.3600E-04
       2.0000E+00          6.4200E-04
       8.0000E+00          2.4300E-04
       2.4000E+01          1.7500E-04
       9.6000E+01          1.2800E-04
       7.2000E+02          1.2800E-04

LOCATION DATA

     Location EAB is in compartment   2

     Using X/Q Table   1

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location LPZ is in compartment   2

     Using X/Q Table   2

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location Control Room is in compartment   3

     Inleakage X/Q Table Assignments
     Inleakage Path   Source Path  X/Q Table
            2              1           3
            3              1           4
            4              1           3

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       7.2000E+02                3.5000E-04

     Location Occupancy Factor Data
      Time (hr)         Occupancy Factor
       0.0000E+00            1.0000E+00
       2.4000E+01            6.0000E-01
       9.6000E+01            4.0000E-01
       7.2000E+02            4.0000E-01

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
      0.0000E+00       1.0000E-06
      1.0000E-03       2.0000E-02
      7.2000E+02       2.0000E-02

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:33:49
```

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#######################################################################

     ####   #    #  #####  #####   #    #  #####
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #####   #    #    #
    #    #  #    #    #    #       #    #    #
    #    #  #    #    #    #       #    #    #
     ####    ####     #    #        ####     #

#######################################################################
           Dose, Detailed Model and Detailed Inventory Output
#######################################################################
```

Detailed model information at time (H) = 0.0001

EAB Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.0876E-05	5.9636E-12	2.0256E-05	1.0876E-05
Accumulated dose (rem)	1.0876E-05	5.9636E-12	2.0256E-05	1.0876E-05

LPZ Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.3439E-06	7.3687E-13	2.5029E-06	1.3439E-06
Accumulated dose (rem)	1.3439E-06	7.3687E-13	2.5029E-06	1.3439E-06

Control Room Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.7007E-10	7.5190E-15	1.7027E-08	2.7014E-10
Accumulated dose (rem)	2.7007E-10	7.5190E-15	1.7027E-08	2.7014E-10

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	1.0730E+04	2.7350E-02	1.9377E+23	3.9702E+14
Kr-85m	1.9869E+05	2.4144E-05	1.7106E+20	7.3516E+15
Kr-87	3.8309E+05	1.3525E-05	9.3617E+19	1.4174E+16
Kr-88	5.3916E+05	4.2998E-05	2.9425E+20	1.9949E+16
Xe-133	1.4953E+06	7.9886E-03	3.6172E+22	5.5327E+16
Xe-135	4.7859E+05	1.8741E-04	8.3599E+20	1.7708E+16
Kr-83m	9.3012E+04	4.5081E-06	3.2709E+19	3.4414E+15
Xe-138	1.2349E+06	1.2842E-05	5.6042E+19	4.5690E+16
Xe-131m	8.5129E+03	1.0163E-04	4.6721E+20	3.1498E+14
Xe-133m	4.7522E+04	1.0591E-04	4.7955E+20	1.7583E+15
Xe-135m	3.0584E+05	3.3575E-06	1.4977E+19	1.1316E+16
Cs-138	8.0548E+01	1.9036E-09	8.3069E+15	2.9803E+12
Rb-88	6.3611E+01	5.2993E-10	3.6265E+15	2.3536E+12

PCS Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.3239E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	2.4335E-09	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	3.7065E-04	9.4474E-10	6.6933E+15	1.3714E+07
Kr-85m	6.8633E-03	8.3399E-13	5.9087E+12	2.5394E+08
Kr-87	1.3233E-02	4.6717E-13	3.2338E+12	4.8962E+08
Kr-88	1.8624E-02	1.4852E-12	1.0164E+13	6.8908E+08
Xe-133	5.1652E-02	2.7595E-10	1.2495E+15	1.9111E+09
Xe-135	1.6531E-02	6.4735E-12	2.8877E+13	6.1167E+08
Kr-83m	3.2128E-03	1.5572E-13	1.1298E+12	1.1888E+08
Xe-138	4.2655E-02	4.4360E-13	1.9358E+12	1.5782E+09
Xe-131m	2.9406E-04	3.5107E-12	1.6139E+13	1.0880E+07
Xe-133m	1.6415E-03	3.6583E-12	1.6565E+13	6.0736E+07
Xe-135m	1.0564E-02	1.1597E-13	5.1734E+11	3.9088E+08
Cs-138	3.7003E-06	8.7448E-17	3.8161E+08	1.3691E+05
Rb-88	2.9222E-06	2.4344E-17	1.6659E+08	1.0812E+05

Environment Transport Group Inventory:

Time (h) = 0.0001	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	1.5976E+14	4.4377E+16	8.0273E+15
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	1.6812E-18	4.6699E-16	1.1179E-16

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Pathway

Time (h) = 0.0001	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	1.4236E-06	3.6286E-12	2.5708E+13	5.2675E+04
Kr-85m	2.6361E-05	3.2033E-15	2.2695E+10	9.7537E+05
Kr-87	5.0826E-05	1.7944E-15	1.2420E+10	1.8806E+06
Kr-88	7.1532E-05	5.7047E-15	3.9039E+10	2.6467E+06
Xe-133	1.9839E-04	1.0599E-12	4.7990E+12	7.3404E+06
Xe-135	6.3496E-05	2.4864E-14	1.1091E+11	2.3493E+06
Kr-83m	1.2340E-05	5.9811E-16	4.3396E+09	4.5659E+05
Xe-138	1.6383E-04	1.7038E-15	7.4353E+09	6.0618E+06
Xe-131m	1.1294E-06	1.3484E-14	6.1987E+10	4.1789E+04
Xe-133m	6.3049E-06	1.4051E-14	6.3623E+10	2.3328E+05
Xe-135m	4.0576E-05	4.4544E-16	1.9870E+09	1.5013E+06
Cs-138	1.4213E-08	3.3589E-19	1.4658E+06	5.2589E+02
Rb-88	1.1224E-08	9.3507E-20	6.3990E+05	4.1531E+02

Control Room Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.0832E+13	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	4.2940E-19	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00

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Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.0250

EAB Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        5.4685E-03  4.1865E-07  1.0207E-02  5.4725E-03
Accumulated dose (rem)  5.4793E-03  4.1865E-07  1.0228E-02  5.4834E-03

LPZ Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        6.7569E-04  5.1729E-08  1.2612E-03  6.7620E-04
Accumulated dose (rem)  6.7704E-04  5.1730E-08  1.2638E-03  6.7754E-04

Control Room Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        5.0570E-05  2.1484E-07  3.2002E-03  5.2668E-05
Accumulated dose (rem)  5.0571E-05  2.1484E-07  3.2002E-03  5.2668E-05

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0250       Ci           kg         Atoms         Bq
Kr-85                  1.0838E+04  2.7623E-02  1.9571E+23  4.0099E+14
Kr-85m                 1.9990E+05  2.4291E-05  1.7210E+20  7.3965E+15
Kr-87                  3.8170E+05  1.3475E-05  9.3277E+19  1.4123E+16
Kr-88                  5.4124E+05  4.3164E-05  2.9538E+20  2.0026E+16
Xe-133                 1.5100E+06  8.0673E-03  3.6528E+22  5.5872E+16
Xe-135                 4.8301E+05  1.8914E-04  8.4373E+20  1.7872E+16
Kr-83m                 9.3059E+04  4.5104E-06  3.2726E+19  3.4432E+15
Xe-138                 1.1593E+06  1.2056E-05  5.2613E+19  4.2894E+16
Xe-131m                8.5974E+03  1.0264E-04  4.7185E+20  3.1810E+14
Xe-133m                4.7980E+04  1.0693E-04  4.8417E+20  1.7753E+15
Xe-135m                2.8867E+05  3.1690E-06  1.4136E+19  1.0681E+16
Cs-138                 3.8521E+04  9.1036E-07  3.9727E+18  1.4253E+15
Rb-88                  3.1300E+04  2.6075E-07  1.7844E+18  1.1581E+15

PCS Transport Group Inventory:

                                                Overlying
Time (h) =   0.0250    Atmosphere     Sump        Pool
Noble gases (atoms)    2.3469E+23  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          1.1711E-06  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0250     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   0.0250       Ci           kg         Atoms         Bq
Kr-85                  1.8682E-01  4.7619E-07  3.3737E+18  6.9125E+09
Kr-85m                 3.4461E+00  4.1875E-10  2.9668E+15  1.2751E+11
Kr-87                  6.5800E+00  2.3230E-10  1.6080E+15  2.4346E+11
Kr-88                  9.3303E+00  7.4409E-10  5.0921E+15  3.4522E+11
Xe-133                 2.6031E+01  1.3907E-07  6.2970E+17  9.6316E+11
Xe-135                 8.3265E+00  3.2606E-09  1.4545E+16  3.0808E+11
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Kr-83m	1.6042E+00	7.7753E-11	5.6415E+14	5.9356E+10
Xe-138	1.9985E+01	2.0784E-10	9.0697E+14	7.3943E+11
Xe-131m	1.4821E-01	1.7694E-09	8.1341E+15	5.4837E+09
Xe-133m	8.2712E-01	1.8433E-09	8.3465E+15	3.0603E+10
Xe-135m	4.9763E+00	5.4629E-11	2.4369E+14	1.8412E+11
Cs-138	6.6406E-01	1.5693E-11	6.8484E+13	2.4570E+10
Rb-88	5.3958E-01	4.4951E-12	3.0761E+13	1.9964E+10

Environment Transport Group Inventory:

Time (h) = 0.0250	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	8.1082E+17	1.1854E+16	4.0458E+18
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	4.0459E-12	5.9151E-14	2.0188E-11

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Kr-85	7.1178E-04	1.8142E-09	1.2854E+16	2.6336E+07
Kr-85m	1.3129E-02	1.5954E-12	1.1303E+13	4.8578E+08
Kr-87	2.5069E-02	8.8503E-13	6.1262E+12	9.2756E+08
Kr-88	3.5548E-02	2.8349E-12	1.9400E+13	1.3153E+09
Xe-133	9.9176E-02	5.2984E-10	2.3991E+15	3.6695E+09
Xe-135	3.1723E-02	1.2422E-11	5.5414E+13	1.1738E+09
Kr-83m	6.1119E-03	2.9623E-13	2.1493E+12	2.2614E+08
Xe-138	7.6139E-02	7.9184E-13	3.4555E+12	2.8172E+09

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Xe-131m                5.6466E-04  6.7413E-12  3.0990E+13  2.0892E+07
Xe-133m                3.1512E-03  7.0230E-12  3.1799E+13  1.1660E+08
Xe-135m                1.8959E-02  2.0813E-13  9.2844E+11  7.0149E+08
Cs-138                 2.5300E-03  5.9790E-14  2.6092E+11  9.3609E+07
Rb-88                  2.0557E-03  1.7126E-14  1.1720E+11  7.6062E+07

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =   0.0250    Atmosphere     Sump        Pool
Noble gases (atoms)    1.5414E+16  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          7.6916E-14  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0250     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.3056

EAB Doses:

Time (h) =   0.3056     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        5.9705E-02  1.1117E-04  1.1810E-01  6.0817E-02
Accumulated dose (rem)  6.5185E-02  1.1159E-04  1.2832E-01  6.6301E-02

LPZ Doses:

Time (h) =   0.3056     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        7.3773E-03  1.3736E-05  1.4592E-02  7.5147E-03
Accumulated dose (rem)  8.0544E-03  1.3788E-05  1.5856E-02  8.1923E-03

Control Room Doses:
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Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.0548E-02	8.0618E-04	7.1594E-01	1.8643E-02
Accumulated dose (rem)	1.0599E-02	8.0639E-04	7.1914E-01	1.8696E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Kr-85	1.0835E+04	2.7618E-02	1.9567E+23	4.0091E+14
Kr-85m	1.9138E+05	2.3255E-05	1.6476E+20	7.0809E+15
Kr-87	3.2751E+05	1.1562E-05	8.0034E+19	1.2118E+16
Kr-88	5.0532E+05	4.0299E-05	2.7578E+20	1.8697E+16
Xe-133	1.5075E+06	8.0536E-03	3.6466E+22	5.5777E+16
Xe-135	4.7697E+05	1.8677E-04	8.3317E+20	1.7648E+16
Kr-83m	8.3661E+04	4.0549E-06	2.9421E+19	3.0954E+15
Xe-138	5.0874E+05	5.2908E-06	2.3088E+19	1.8823E+16
Xe-131m	8.5899E+03	1.0255E-04	4.7144E+20	3.1782E+14
Xe-133m	4.7794E+04	1.0651E-04	4.8229E+20	1.7684E+15
Xe-135m	1.3456E+05	1.4771E-06	6.5892E+18	4.9785E+15
Cs-138	2.6399E+05	6.2389E-06	2.7226E+19	9.7678E+15
Rb-88	2.7253E+05	2.2703E-06	1.5537E+19	1.0084E+16

PCS Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.3450E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	8.5092E-06	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Kr-85	2.2837E+00	5.8209E-06	4.1240E+19	8.4498E+10
Kr-85m	4.0335E+01	4.9013E-09	3.4725E+16	1.4924E+12
Kr-87	6.9027E+01	2.4369E-09	1.6868E+16	2.5540E+12
Kr-88	1.0650E+02	8.4936E-09	5.8125E+16	3.9406E+12
Xe-133	3.1773E+02	1.6974E-06	7.6858E+18	1.1756E+13
Xe-135	1.0053E+02	3.9365E-08	1.7560E+17	3.7195E+12
Kr-83m	1.7633E+01	8.5462E-10	6.2008E+15	6.5241E+11
Xe-138	1.0722E+02	1.1151E-09	4.8662E+15	3.9673E+12
Xe-131m	1.8104E+00	2.1614E-08	9.9362E+16	6.6986E+10
Xe-133m	1.0073E+01	2.2449E-08	1.0165E+17	3.7271E+11
Xe-135m	2.8359E+01	3.1132E-10	1.3888E+15	1.0493E+12
Cs-138	5.5640E+01	1.3149E-09	5.7382E+15	2.0587E+12
Rb-88	5.7439E+01	4.7851E-10	3.2746E+15	2.1253E+12

Environment Transport Group Inventory:

Time (h) = 0.3056	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	8.9935E+17	1.2491E+16	4.9425E+19
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	3.2634E-11	4.5325E-13	1.7934E-09

SG Tube Leakage Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3056	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Kr-85	1.2443E-02	3.1715E-08	2.2470E+17	4.6038E+08
Kr-85m	2.1976E-01	2.6704E-11	1.8920E+14	8.1313E+09
Kr-87	3.7609E-01	1.3277E-11	9.1907E+13	1.3915E+10
Kr-88	5.8028E-01	4.6277E-11	3.1669E+14	2.1470E+10
Xe-133	1.7311E+00	9.2483E-09	4.1876E+16	6.4051E+10
Xe-135	5.4772E-01	2.1448E-10	9.5676E+14	2.0266E+10
Kr-83m	9.6071E-02	4.6564E-12	3.3785E+13	3.5546E+09
Xe-138	5.8421E-01	6.0757E-12	2.6513E+13	2.1616E+10
Xe-131m	9.8641E-03	1.1776E-10	5.4137E+14	3.6497E+08
Xe-133m	5.4883E-02	1.2232E-10	5.5383E+14	2.0307E+09
Xe-135m	1.5451E-01	1.6962E-12	7.5667E+12	5.7171E+09
Cs-138	3.0316E-01	7.1644E-12	3.1264E+13	1.1217E+10
Rb-88	3.1296E-01	2.6071E-12	1.7841E+13	1.1579E+10

Control Room Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.6929E+17	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	9.7715E-12	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter

```
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.3333

EAB Doses:

Time (h) =   0.3333     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        5.6370E-03  1.7787E-05  1.1694E-02  5.8182E-03
Accumulated dose (rem)  7.0822E-02  1.2937E-04  1.4002E-01  7.2119E-02

LPZ Doses:

Time (h) =   0.3333     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        6.9652E-04  2.1978E-06  1.4449E-03  7.1891E-04
Accumulated dose (rem)  8.7509E-03  1.5986E-05  1.7301E-02  8.9112E-03

Control Room Doses:

Time (h) =   0.3333     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.8659E-03  1.9935E-04  1.3105E-01  3.8971E-03
Accumulated dose (rem)  1.2465E-02  1.0057E-03  8.5019E-01  2.2593E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.3333       Ci           kg         Atoms         Bq
Kr-85                  1.0835E+04  2.7617E-02  1.9567E+23  4.0091E+14
Kr-85m                 1.9055E+05  2.3155E-05  1.6405E+20  7.0504E+15
Kr-87                  3.2259E+05  1.1389E-05  7.8831E+19  1.1936E+16
Kr-88                  5.0190E+05  4.0027E-05  2.7392E+20  1.8570E+16
Xe-133                 1.5072E+06  8.0523E-03  3.6460E+22  5.5768E+16
Xe-135                 4.7623E+05  1.8648E-04  8.3187E+20  1.7620E+16
Kr-83m                 8.2785E+04  4.0124E-06  2.9112E+19  3.0630E+15
Xe-138                 4.6895E+05  4.8770E-06  2.1282E+19  1.7351E+16
Xe-131m                8.5891E+03  1.0254E-04  4.7140E+20  3.1780E+14
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Xe-133m	4.7775E+04	1.0647E-04	4.8210E+20	1.7677E+15
Xe-135m	1.2477E+05	1.3697E-06	6.1102E+18	4.6166E+15
Cs-138	2.7205E+05	6.4292E-06	2.8056E+19	1.0066E+16
Rb-88	2.8754E+05	2.3954E-06	1.6393E+19	1.0639E+16

PCS Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.3448E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	8.8246E-06	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Kr-85	2.4915E+00	6.3506E-06	4.4993E+19	9.2187E+10
Kr-85m	4.3817E+01	5.3244E-09	3.7722E+16	1.6212E+12
Kr-87	7.4178E+01	2.6188E-09	1.8127E+16	2.7446E+12
Kr-88	1.1541E+02	9.2040E-09	6.2986E+16	4.2702E+12
Xe-133	3.4659E+02	1.8516E-06	8.3839E+18	1.2824E+13
Xe-135	1.0951E+02	4.2881E-08	1.9129E+17	4.0518E+12
Kr-83m	1.9036E+01	9.2265E-10	6.6943E+15	7.0434E+11
Xe-138	1.0783E+02	1.1214E-09	4.8938E+15	3.9898E+12
Xe-131m	1.9750E+00	2.3580E-08	1.0840E+17	7.3077E+10
Xe-133m	1.0986E+01	2.4483E-08	1.1086E+17	4.0648E+11
Xe-135m	2.8691E+01	3.1497E-10	1.4050E+15	1.0616E+12
Cs-138	6.2556E+01	1.4784E-09	6.4514E+15	2.3146E+12
Rb-88	6.6120E+01	5.5082E-10	3.7695E+15	2.4464E+12

Environment Transport Group Inventory:

Time (h) = 0.3333	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.1560E+18	4.1463E+16	5.3919E+19
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	8.1139E-11	1.5604E-12	2.0292E-09

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Kr-85	1.3123E-02	3.3449E-08	2.3699E+17	4.8557E+08
Kr-85m	2.3079E-01	2.8044E-11	1.9869E+14	8.5393E+09
Kr-87	3.9071E-01	1.3794E-11	9.5479E+13	1.4456E+10
Kr-88	6.0789E-01	4.8479E-11	3.3176E+14	2.2492E+10
Xe-133	1.8255E+00	9.7527E-09	4.4160E+16	6.7545E+10
Xe-135	5.7679E-01	2.2586E-10	1.0075E+15	2.1341E+10
Kr-83m	1.0027E-01	4.8597E-12	3.5260E+13	3.7099E+09
Xe-138	5.6798E-01	5.9069E-12	2.5777E+13	2.1015E+10
Xe-131m	1.0403E-02	1.2420E-10	5.7094E+14	3.8491E+08
Xe-133m	5.7864E-02	1.2896E-10	5.8391E+14	2.1410E+09
Xe-135m	1.5112E-01	1.6590E-12	7.4005E+12	5.5915E+09
Cs-138	3.2949E-01	7.7868E-12	3.3981E+13	1.2191E+10
Rb-88	3.4826E-01	2.9013E-12	1.9854E+13	1.2886E+10

Control Room Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.8400E+17	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	1.0688E-11	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Pathway

```
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    2.0000

EAB Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.3667E-01  9.8912E-04  5.4543E-01  2.4815E-01
Accumulated dose (rem)  3.0749E-01  1.1185E-03  6.8545E-01  3.2027E-01

LPZ Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.9243E-02  1.2222E-04  6.7395E-02  3.0662E-02
Accumulated dose (rem)  3.7994E-02  1.3820E-04  8.4696E-02  3.9573E-02

Control Room Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.6553E-02  2.3510E-03  1.9054E+00  5.3245E-02
Accumulated dose (rem)  3.9018E-02  3.3567E-03  2.7555E+00  7.5838E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   2.0000       Ci           kg         Atoms         Bq
Kr-85                  1.0823E+04  2.7586E-02  1.9545E+23  4.0045E+14
Kr-85m                 1.4707E+05  1.7871E-05  1.2661E+20  5.4415E+15
Kr-87                  1.2990E+05  4.5859E-06  3.1744E+19  4.8062E+15
Kr-88                  3.3377E+05  2.6618E-05  1.8216E+20  1.2350E+16
Xe-133                 1.4922E+06  7.9718E-03  3.6096E+22  5.5211E+16
Xe-135                 4.2203E+05  1.6526E-04  7.3721E+20  1.5615E+16
Kr-83m                 4.3983E+04  2.1318E-06  1.5467E+19  1.6274E+15
Xe-138                 3.5169E+03  3.6575E-08  1.5961E+17  1.3013E+14
Xe-131m                8.5446E+03  1.0201E-04  4.6895E+20  3.1615E+14
Xe-133m                4.6682E+04  1.0404E-04  4.7107E+20  1.7272E+15
Xe-135m                1.3390E+03  1.4699E-08  6.5570E+16  4.9542E+13
Cs-138                 7.2090E+04  1.7037E-06  7.4346E+18  2.6673E+15
Rb-88                  3.7567E+05  3.1296E-06  2.1417E+19  1.3900E+16

PCS Transport Group Inventory:

                                                Overlying
Time (h) =   2.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    2.3357E+23  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          4.8333E-06  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   2.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
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```
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   2.0000       Ci           kg          Atoms         Bq
Kr-85                  1.5021E+01  3.8287E-05  2.7126E+20  5.5578E+11
Kr-85m                 2.0411E+02  2.4803E-08  1.7572E+17  7.5522E+12
Kr-87                  1.8028E+02  6.3647E-09  4.4056E+16  6.6705E+12
Kr-88                  4.6324E+02  3.6943E-08  2.5282E+17  1.7140E+13
Xe-133                 2.0710E+03  1.1064E-05  5.0097E+19  7.6626E+13
Xe-135                 5.8573E+02  2.2936E-07  1.0232E+18  2.1672E+13
Kr-83m                 6.1043E+01  2.9586E-09  2.1467E+16  2.2586E+12
Xe-138                 4.8811E+00  5.0762E-11  2.2152E+14  1.8060E+11
Xe-131m                1.1859E+01  1.4158E-07  6.5085E+17  4.3878E+11
Xe-133m                6.4789E+01  1.4439E-07  6.5379E+17  2.3972E+12
Xe-135m                1.8583E+00  2.0401E-11  9.1004E+13  6.8759E+10
Cs-138                 9.9998E+01  2.3632E-09  1.0313E+16  3.6999E+12
Rb-88                  5.2133E+02  4.3430E-09  2.9721E+16  1.9289E+13

Environment Transport Group Inventory:

                        Present     Release     Integral
Time (h) =   2.0000     Release     Rate/s      Release
Noble gases (atoms)    3.2403E+18  4.5004E+16  3.2417E+20
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          6.7019E-11  9.3082E-13  6.7062E-09

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) =   2.0000       Ci           kg          Atoms         Bq
Cs-138                 3.3650E-02  7.9524E-13  3.4703E+12  1.2451E+09
Rb-88                  5.5097E-02  4.5900E-13  3.1411E+12  2.0386E+09

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          1.2542E-12

Control Room Unfiltered Inleakage Transport Group Inventory:
```

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	2.0118E-03	5.1276E-09	3.6329E+16	7.4435E+07
Kr-85m	2.7337E-02	3.3218E-12	2.3534E+13	1.0115E+09
Kr-87	2.4145E-02	8.5241E-13	5.9004E+12	8.9337E+08
Kr-88	6.2041E-02	4.9477E-12	3.3859E+13	2.2955E+09
Xe-133	2.7736E-01	1.4818E-09	6.7094E+15	1.0262E+10
Xe-135	7.8446E-02	3.0718E-11	1.3703E+14	2.9025E+09
Kr-83m	8.1753E-03	3.9624E-13	2.8750E+12	3.0249E+08
Xe-138	6.5371E-04	6.7985E-15	2.9668E+10	2.4187E+07
Xe-131m	1.5882E-03	1.8961E-11	8.7167E+13	5.8765E+07
Xe-133m	8.6770E-03	1.9338E-11	8.7561E+13	3.2105E+08
Xe-135m	2.4888E-04	2.7322E-15	1.2188E+10	9.2087E+06
Cs-138	1.2252E-03	2.8956E-14	1.2636E+11	4.5334E+07
Rb-88	2.7137E-02	2.2607E-13	1.5471E+12	1.0041E+09

Control Room Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	4.3416E+16	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	2.5503E-13	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Cs-138	3.3526E-02	7.9231E-13	3.4576E+12	1.2405E+09
Rb-88	4.1582E-02	3.4641E-13	2.3706E+12	1.5385E+09

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	1.1387E-12

Control Room Unfiltered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Cs-138	3.3650E-02	7.9524E-13	3.4703E+12	1.2451E+09
Rb-88	5.5097E-02	4.5900E-13	3.1411E+12	2.0386E+09

Control Room Filtered Makeup Transport Group Inventory:

```
                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          1.2542E-12

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   2.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) =   2.0000       Ci           kg         Atoms         Bq
Cs-138                 6.7176E-02  1.5876E-12  6.9279E+12  2.4855E+09
Rb-88                  9.6679E-02  8.0540E-13  5.5116E+12  3.5771E+09

Detailed model information at time (H) =    8.0000

EAB Doses:

Time (h) =   8.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.8599E-01  8.9540E-04  7.3258E-01  2.9988E-01
Accumulated dose (rem)  5.9348E-01  2.0139E-03  1.4180E+00  6.2014E-01

LPZ Doses:

Time (h) =   8.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.6077E-02  5.0335E-05  4.1182E-02  1.6858E-02
Accumulated dose (rem)  5.4071E-02  1.8854E-04  1.2588E-01  5.6430E-02

Control Room Doses:

Time (h) =   8.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.0014E-02  4.1392E-04  7.3303E-01  1.6742E-02
Accumulated dose (rem)  4.9032E-02  3.7706E-03  3.4886E+00  9.2579E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Kr-85                  1.0779E+04  2.7473E-02  1.9464E+23  3.9881E+14
Kr-85m                 5.7882E+04  7.0335E-06  4.9832E+19  2.1417E+15
Kr-87                  4.9144E+03  1.7350E-07  1.2009E+18  1.8183E+14
Kr-88                  7.6854E+04  6.1291E-06  4.1943E+19  2.8436E+15
Xe-133                 1.4391E+06  7.6885E-03  3.4813E+22  5.3248E+16
Xe-135                 2.6600E+05  1.0416E-04  4.6465E+20  9.8420E+15
Kr-83m                 4.5132E+03  2.1875E-07  1.5872E+18  1.6699E+14
Xe-138                 7.8786E-05  8.1936E-16  3.5756E+09  2.9151E+06
Xe-131m                8.3861E+03  1.0012E-04  4.6025E+20  3.1028E+14
Xe-133m                4.2948E+04  9.5716E-05  4.3339E+20  1.5891E+15
Xe-135m                1.0896E-04  1.1962E-15  5.3359E+09  4.0316E+06
Cs-138                 3.2141E+01  7.5959E-10  3.3147E+15  1.1892E+12
Rb-88                  8.7841E+04  7.3178E-07  5.0078E+18  3.2501E+15

PCS Transport Group Inventory:

                                                Overlying
Time (h) =   8.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    2.3091E+23  0.0000E+00  0.0000E+00
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```
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          7.3253E-07  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   8.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Kr-85                  5.9970E+01  1.5285E-04  1.0829E+21  2.2189E+12
Kr-85m                 3.2205E+02  3.9133E-08  2.7725E+17  1.1916E+13
Kr-87                  2.7343E+01  9.6530E-10  6.6818E+15  1.0117E+12
Kr-88                  4.2760E+02  3.4101E-08  2.3337E+17  1.5821E+13
Xe-133                 8.0071E+03  4.2777E-05  1.9369E+20  2.9626E+14
Xe-135                 1.4800E+03  5.7953E-07  2.5852E+18  5.4759E+13
Kr-83m                 2.5111E+01  1.2171E-09  8.8306E+15  9.2910E+11
Xe-131m                4.6658E+01  5.5704E-07  2.5608E+18  1.7264E+12
Xe-133m                2.3896E+02  5.3254E-07  2.4113E+18  8.8413E+12
Cs-138                 1.7874E-01  4.2242E-12  1.8434E+13  6.6135E+09
Rb-88                  4.8872E+02  4.0714E-09  2.7862E+16  1.8083E+13

Environment Transport Group Inventory:

                        Present     Release     Integral
Time (h) =   8.0000     Release     Rate/s      Release
Noble gases (atoms)    3.2030E+18  4.4486E+16  1.2847E+21
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          1.0158E-11  1.4109E-13  4.0756E-09

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Cs-138                 7.1116E-05  1.6807E-15  7.3342E+09  2.6313E+06
Rb-88                  1.2094E-02  1.0075E-13  6.8946E+11  4.4747E+08

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
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Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          1.0243E-13

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Kr-85                  1.5459E-03  3.9402E-09  2.7916E+16  5.7198E+07
Kr-85m                 8.3016E-03  1.0088E-12  7.1470E+12  3.0716E+08
Kr-87                  7.0484E-04  2.4883E-14  1.7224E+11  2.6079E+07
Kr-88                  1.1023E-02  8.7905E-13  6.0156E+12  4.0784E+08
Xe-133                 2.0641E-01  1.1027E-09  4.9929E+15  7.6370E+09
Xe-135                 3.8150E-02  1.4939E-11  6.6641E+13  1.4116E+09
Kr-83m                 6.4730E-04  3.1374E-14  2.2763E+11  2.3950E+07
Xe-131m                1.2027E-03  1.4359E-11  6.6010E+13  4.4502E+07
Xe-133m                6.1597E-03  1.3728E-11  6.2158E+13  2.2791E+08
Cs-138                 3.1929E-07  7.5456E-18  3.2928E+07  1.1814E+04
Rb-88                  4.6484E-03  3.8724E-14  2.6500E+11  1.7199E+08

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =   8.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    3.3117E+16  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          3.8732E-14  0.0000E+00  0.0000E+00

                       Recirculating Filter Inventory

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Cs-138                 1.9118E-05  4.5180E-16  1.9716E+09  7.0735E+05
Rb-88                  4.9007E-03  4.0826E-14  2.7939E+11  1.8133E+08

                       Deposition Recirculating
Time (h) =   8.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  4.1278E-14

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) =   8.0000       Ci           kg         Atoms         Bq
Cs-138                 7.1116E-05  1.6807E-15  7.3342E+09  2.6313E+06
Rb-88                  1.2094E-02  1.0075E-13  6.8946E+11  4.4747E+08
```

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	1.0243E-13

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Cs-138	9.0234E-05	2.1325E-15	9.3057E+09	3.3386E+06
Rb-88	1.6995E-02	1.4158E-13	9.6885E+11	6.2880E+08

Detailed model information at time (H) = 24.0000

EAB Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	4.0681E-06	2.4162E-09	9.5195E-06	4.1080E-06
Accumulated dose (rem)	5.9348E-01	2.0139E-03	1.4180E+00	6.2015E-01

LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.5397E-07	9.1447E-11	3.6029E-07	1.5548E-07
Accumulated dose (rem)	5.4071E-02	1.8854E-04	1.2588E-01	5.6431E-02

Control Room Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.3191E-04	1.2983E-05	2.6295E-02	5.4608E-04
Accumulated dose (rem)	4.9364E-02	3.7836E-03	3.5149E+00	9.3126E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	1.0778E+04	2.7471E-02	1.9463E+23	3.9878E+14
Kr-85m	4.8690E+03	5.9165E-07	4.1918E+18	1.8015E+14
Kr-87	8.0156E-01	2.8298E-11	1.9588E+14	2.9658E+10
Kr-88	1.5478E+03	1.2344E-07	8.4474E+17	5.7270E+13
Xe-133	1.3210E+06	7.0575E-03	3.1956E+22	4.8878E+16
Xe-135	7.8526E+04	3.0750E-05	1.3717E+20	2.9055E+15
Kr-83m	1.0533E+01	5.1049E-10	3.7039E+15	3.8970E+11
Xe-131m	8.0667E+03	9.6306E-05	4.4272E+20	2.9847E+14
Xe-133m	3.4771E+04	7.7493E-05	3.5088E+20	1.2865E+15
Cs-138	3.4061E-08	8.0495E-19	3.5127E+06	1.2603E+03
Rb-88	1.7691E+03	1.4738E-08	1.0086E+17	6.5457E+13

PCS Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool

```
Noble gases (atoms)    2.2752E+23  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          1.4738E-08  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =  24.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Environment Transport Group Inventory:

                        Present     Release     Integral
Time (h) =  24.0000     Release     Rate/s      Release
Noble gases (atoms)    4.7740E-02  6.6306E-04  1.2659E+21
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          1.5276E-33  2.1216E-35  8.2001E-11

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          1.7810E-24

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
```

```
Aerosols (kg)          0.0000E+00

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =  24.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    9.8021E-01  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          3.0692E-32  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =  24.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  4.8277E-25

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          1.7810E-24

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =   96.0000

EAB Doses:

Time (h) =  96.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.7645E-23  2.0567E-27  8.5054E-23  2.7679E-23
Accumulated dose (rem)  5.9348E-01  2.0139E-03  1.4180E+00  6.2015E-01

LPZ Doses:

Time (h) =  96.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        4.4468E-25  3.3083E-29  1.3681E-24  4.4522E-25
Accumulated dose (rem)  5.4071E-02  1.8854E-04  1.2588E-01  5.6431E-02

Control Room Doses:

Time (h) =  96.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.3532E-21  5.1894E-24  1.4095E-19  1.4389E-21
Accumulated dose (rem)  4.9364E-02  3.7836E-03  3.5149E+00  9.3126E-02
```

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	1.0772E+04	2.7456E-02	1.9453E+23	3.9857E+14
Kr-85m	7.0706E-02	8.5918E-12	6.0872E+13	2.6161E+09
Kr-88	3.6139E-05	2.8821E-15	1.9723E+10	1.3371E+06
Xe-133	8.9578E+05	4.7856E-03	2.1669E+22	3.3144E+16
Xe-135	3.2406E+02	1.2690E-07	5.6606E+17	1.1990E+13
Xe-131m	6.7734E+03	8.0865E-05	3.7174E+20	2.5061E+14
Xe-133m	1.3442E+04	2.9958E-05	1.3565E+20	4.9737E+14
Rb-88	4.1306E-05	3.4410E-16	2.3548E+09	1.5283E+06

PCS Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.1670E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	3.4410E-16	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Transport Group Inventory:

Time (h) = 96.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	0.0000E+00	0.0000E+00	1.2057E+21
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	1.9146E-18

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

```
Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =  96.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =  96.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  96.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =  720.0000
```

EAB Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	5.4456E-98	2.1429-109	1.8273E-97	5.4456E-98
Accumulated dose (rem)	5.9348E-01	2.0139E-03	1.4180E+00	6.2015E-01

LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.5662-100	1.0098-111	8.6109-100	2.5662-100
Accumulated dose (rem)	5.4071E-02	1.8854E-04	1.2588E-01	5.6431E-02

Control Room Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.7771E-96	3.6046-106	2.0187E-94	1.7771E-96
Accumulated dose (rem)	4.9364E-02	3.7836E-03	3.5149E+00	9.3126E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	1.0723E+04	2.7330E-02	1.9363E+23	3.9674E+14
Xe-133	2.9145E+04	1.5570E-04	7.0502E+20	1.0784E+15
Xe-131m	1.4897E+03	1.7785E-05	8.1758E+19	5.5118E+13
Xe-133m	3.5591E+00	7.9319E-09	3.5915E+16	1.3169E+11

PCS Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.9442E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Transport Group Inventory:

Time (h) = 720.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	0.0000E+00	0.0000E+00	1.0817E+21
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter

```
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Transport Group Inventory:

                                                Overlying
Time (h) = 720.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) = 720.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
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```
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                       Pathway
Time (h) = 720.0000     Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

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Transport Group Totals in Model:
--------------------------------
Noble Gases (atoms)    1.9550E+23
Elemental I (atoms)    0.0000E+00
Organic I   (atoms)    0.0000E+00
Aerosols    (kg)       0.0000E+00
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  37004

#####################################################################
                              I-131 Summary
#####################################################################
```

Time (hr)	PCS I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	0.0000E+00	0.0000E+00	0.0000E+00
0.000	0.0000E+00	0.0000E+00	0.0000E+00
0.025	0.0000E+00	0.0000E+00	0.0000E+00
0.300	0.0000E+00	0.0000E+00	0.0000E+00
0.306	0.0000E+00	0.0000E+00	0.0000E+00
0.333	0.0000E+00	0.0000E+00	0.0000E+00
0.600	0.0000E+00	0.0000E+00	0.0000E+00
0.860	0.0000E+00	0.0000E+00	0.0000E+00
1.120	0.0000E+00	0.0000E+00	0.0000E+00
1.380	0.0000E+00	0.0000E+00	0.0000E+00
1.640	0.0000E+00	0.0000E+00	0.0000E+00
1.900	0.0000E+00	0.0000E+00	0.0000E+00
2.000	0.0000E+00	0.0000E+00	0.0000E+00
2.260	0.0000E+00	0.0000E+00	0.0000E+00
2.520	0.0000E+00	0.0000E+00	0.0000E+00
2.780	0.0000E+00	0.0000E+00	0.0000E+00
3.040	0.0000E+00	0.0000E+00	0.0000E+00
3.300	0.0000E+00	0.0000E+00	0.0000E+00
3.560	0.0000E+00	0.0000E+00	0.0000E+00
3.820	0.0000E+00	0.0000E+00	0.0000E+00
4.080	0.0000E+00	0.0000E+00	0.0000E+00
4.340	0.0000E+00	0.0000E+00	0.0000E+00
4.600	0.0000E+00	0.0000E+00	0.0000E+00
4.860	0.0000E+00	0.0000E+00	0.0000E+00
5.120	0.0000E+00	0.0000E+00	0.0000E+00
5.380	0.0000E+00	0.0000E+00	0.0000E+00
5.640	0.0000E+00	0.0000E+00	0.0000E+00
5.900	0.0000E+00	0.0000E+00	0.0000E+00
6.160	0.0000E+00	0.0000E+00	0.0000E+00
6.420	0.0000E+00	0.0000E+00	0.0000E+00
6.680	0.0000E+00	0.0000E+00	0.0000E+00
6.940	0.0000E+00	0.0000E+00	0.0000E+00
7.200	0.0000E+00	0.0000E+00	0.0000E+00
7.460	0.0000E+00	0.0000E+00	0.0000E+00
7.720	0.0000E+00	0.0000E+00	0.0000E+00
7.980	0.0000E+00	0.0000E+00	0.0000E+00
8.000	0.0000E+00	0.0000E+00	0.0000E+00
8.260	0.0000E+00	0.0000E+00	0.0000E+00
8.520	0.0000E+00	0.0000E+00	0.0000E+00
8.780	0.0000E+00	0.0000E+00	0.0000E+00
9.040	0.0000E+00	0.0000E+00	0.0000E+00
9.300	0.0000E+00	0.0000E+00	0.0000E+00
9.560	0.0000E+00	0.0000E+00	0.0000E+00
9.820	0.0000E+00	0.0000E+00	0.0000E+00
10.080	0.0000E+00	0.0000E+00	0.0000E+00

24.000	0.0000E+00	0.0000E+00	0.0000E+00
96.000	0.0000E+00	0.0000E+00	0.0000E+00
720.000	0.0000E+00	0.0000E+00	0.0000E+00

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#####################################################################
                        Cumulative Dose Summary
#####################################################################
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	EAB		LPZ		Control Room	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	1.0877E-09	0.0000E+00	1.3440E-10	0.0000E+00	4.0510E-16
0.000	5.9636E-12	1.0876E-05	7.3687E-13	1.3439E-06	7.5190E-15	2.7014E-10
0.025	4.1865E-07	5.4834E-03	5.1730E-08	6.7754E-04	2.1484E-07	5.2668E-05
0.300	1.0809E-04	6.5133E-02	1.3356E-05	8.0479E-03	7.6853E-04	1.7948E-02
0.306	1.1159E-04	6.6301E-02	1.3788E-05	8.1923E-03	8.0639E-04	1.8696E-02
0.333	1.2937E-04	7.2119E-02	1.5986E-05	8.9112E-03	1.0057E-03	2.2593E-02
0.600	3.2169E-04	1.2544E-01	3.9749E-05	1.5499E-02	2.3147E-03	4.8789E-02
0.860	5.1302E-04	1.7172E-01	6.3390E-05	2.1218E-02	2.8361E-03	6.0518E-02
1.120	6.8699E-04	2.1261E-01	8.4886E-05	2.6271E-02	3.0727E-03	6.6686E-02
1.380	8.3846E-04	2.4880E-01	1.0360E-04	3.0743E-02	3.1988E-03	7.0449E-02
1.640	9.6841E-04	2.8102E-01	1.1966E-04	3.4723E-02	3.2789E-03	7.3085E-02
1.900	1.0799E-03	3.0991E-01	1.3343E-04	3.8294E-02	3.3375E-03	7.5143E-02
2.000	1.1185E-03	3.2027E-01	1.3820E-04	3.9573E-02	3.3567E-03	7.5838E-02
2.260	1.2096E-03	3.4545E-01	1.4333E-04	4.0989E-02	3.3999E-03	7.7430E-02
2.520	1.2894E-03	3.6846E-01	1.4781E-04	4.2282E-02	3.4356E-03	7.8782E-02
2.780	1.3600E-03	3.8961E-01	1.5178E-04	4.3471E-02	3.4666E-03	7.9976E-02
3.040	1.4231E-03	4.0916E-01	1.5533E-04	4.4570E-02	3.4943E-03	8.1058E-02
3.300	1.4801E-03	4.2731E-01	1.5853E-04	4.5590E-02	3.5196E-03	8.2055E-02
3.560	1.5319E-03	4.4422E-01	1.6144E-04	4.6541E-02	3.5428E-03	8.2982E-02
3.820	1.5793E-03	4.6003E-01	1.6411E-04	4.7429E-02	3.5644E-03	8.3849E-02
4.080	1.6229E-03	4.7484E-01	1.6656E-04	4.8262E-02	3.5845E-03	8.4661E-02
4.340	1.6633E-03	4.8875E-01	1.6883E-04	4.9044E-02	3.6032E-03	8.5425E-02
4.600	1.7007E-03	5.0184E-01	1.7093E-04	4.9780E-02	3.6208E-03	8.6144E-02
4.860	1.7355E-03	5.1417E-01	1.7289E-04	5.0473E-02	3.6372E-03	8.6822E-02
5.120	1.7680E-03	5.2581E-01	1.7471E-04	5.1127E-02	3.6526E-03	8.7460E-02
5.380	1.7982E-03	5.3680E-01	1.7641E-04	5.1745E-02	3.6670E-03	8.8063E-02
5.640	1.8265E-03	5.4719E-01	1.7801E-04	5.2329E-02	3.6805E-03	8.8632E-02
5.900	1.8530E-03	5.5703E-01	1.7949E-04	5.2882E-02	3.6932E-03	8.9170E-02
6.160	1.8778E-03	5.6635E-01	1.8089E-04	5.3406E-02	3.7051E-03	8.9678E-02
6.420	1.9010E-03	5.7518E-01	1.8219E-04	5.3903E-02	3.7162E-03	9.0159E-02
6.680	1.9227E-03	5.8357E-01	1.8341E-04	5.4374E-02	3.7267E-03	9.0614E-02
6.940	1.9431E-03	5.9153E-01	1.8456E-04	5.4822E-02	3.7365E-03	9.1044E-02
7.200	1.9622E-03	5.9909E-01	1.8563E-04	5.5247E-02	3.7457E-03	9.1452E-02
7.460	1.9801E-03	6.0629E-01	1.8664E-04	5.5651E-02	3.7544E-03	9.1839E-02
7.720	1.9970E-03	6.1313E-01	1.8759E-04	5.6036E-02	3.7625E-03	9.2206E-02
7.980	2.0127E-03	6.1965E-01	1.8847E-04	5.6403E-02	3.7701E-03	9.2553E-02
8.000	2.0139E-03	6.2014E-01	1.8854E-04	5.6430E-02	3.7706E-03	9.2579E-02
8.260	2.0139E-03	6.2014E-01	1.8854E-04	5.6430E-02	3.7766E-03	9.2838E-02
8.520	2.0139E-03	6.2015E-01	1.8854E-04	5.6430E-02	3.7800E-03	9.2977E-02
8.780	2.0139E-03	6.2015E-01	1.8854E-04	5.6430E-02	3.7818E-03	9.3049E-02
9.040	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7827E-03	9.3086E-02
9.300	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7832E-03	9.3105E-02
9.560	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7834E-03	9.3115E-02
9.820	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7835E-03	9.3120E-02
10.080	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7836E-03	9.3123E-02
24.000	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7836E-03	9.3126E-02
96.000	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7836E-03	9.3126E-02
720.000	2.0139E-03	6.2015E-01	1.8854E-04	5.6431E-02	3.7836E-03	9.3126E-02

```
#####################################################################
                        Worst Two-Hour Dose
                  (Provided for Dose Location 1)
#####################################################################
```

EAB

Time (hr)	Whole Body (rem)	Thyroid (rem)	Skin (rem)	TEDE (rem)
0.0	3.0749E-01	1.1185E-03	6.8545E-01	3.2027E-01

```
#####################################################################
                    30 Day Control Room Skin Dose
#####################################################################
```

Control Room

Time (hr)	Skin (rem)
720.0	3.5149E+00

Attachment 6 Secondary Side Release DNB Iodine Release Dose

```
#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:04:44
#######################################################################

#######################################################################
                    File information
#######################################################################

Plant file name           = AST/CRE/pal_CRE_DNB_sec_iodine_db_ast.psf
Inventory file name       = AST/CRE/palisades_loca_db_ast.nif
Scenario file name        = AST/CRE/pal_CRE_DNB_sec_iodine_db_ast.psf
Release file name         = AST/CRE/pal_cre_dnb_sec_iodine_ast.rft
Dose conversion file name = AST/CRE/nai-1101-001rev0.dcf




     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #


*RADTRAD-NAI 1.1a(QA)
*18 May 2006 13:04:36
** Palisades CRE Design Basis
** DNB Secondary Release Iodine Dose
**
*Nuclide inventory file
AST/CRE/palisades_loca_db_ast.nif
*Plant power
810.576
*Compartments
4
*Compartment 1:
PCS
   3
432976.8
   0
   0
   0
   0
*Compartment 2:
Environment
   2
2e+20
   0
   0
   0
   0
*Compartment 3:
Control Room
   1
35923
   0
   1
   0
   0
*Compartment 4:
SGs
   3
282130
   0
   0
   0
   0
```

```
*Pathways
   6
*Pathway 1:
SG Tube Leakage
   1
   4
   2
*Pathway 2:
Control Room Unfiltered Makeup
   2
   3
   2
*Pathway 3:
Control Room Filtered Makeup
   2
   3
   2
*Pathway 4:
Control Room Unfiltered Inleakage
   2
   3
   2
*Pathway 5:
Control Room Exhaust
   3
   2
   2
*Pathway 6:
SRV/ADV Steam Release
   4
   2
   2
*Sources
   4
   1 1
   2 0
   3 0
   4 0
*dose conversion factors filename
AST/CRE/nai-1101-001rev0.dcf
*release fraction and timing filename
AST/CRE/pal_cre_dnb_sec_iodine_ast.rft
0
   1
   1
*Iodine
0 0.97 0.03
*Overlying pool
*aerosol model
   0
*elemental model
   0
*organic model
   0
*pH tracking
   0
*Compartment detail
*Compartment 1:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Compartment 2:
   1
*spray model
0
0
```

```
0
*filter model
0
*deposition model
0
0
*Compartment 3:
   1
*spray model
0
0
0
*filter model
   1
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*deposition model
0
0
*Compartment 4:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Pathways:
*Pathway 1
*filter efficiency model
   1
   3
0 5.005 0 0 0
8 0 0 0 0
720 0 0 0 0
*Pathway 2
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 0 0 0 0
720 0 0 0 0
*Pathway 3
*filter efficiency model
   1
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*Pathway 4
*filter efficiency model
   1
   3
0 0 0 0 0
0.3333 10 0 0 0
720 10 0 0 0
*Pathway 5
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 1423.6 0 0 0
720 1423.6 0 0 0
*Pathway 6
*filter efficiency model
   1
```

```
   5
0 58.45 0 0 0
0.305556 26.86 0 0 0
0.5 22.38 0 0 0
8 0 0 0 0
720 0 0 0 0
*x/q tables
   4
EAB
   2
0 0.000539
720 0.000539
LPZ
   6
0 6.66e-05
2 3.03e-05
8 2.04e-05
24 8.67e-06
96 2.54e-06
720 2.54e-06
Control Room Unfiltered
   7
0 0.0211
0.305556 0.0165
2 0.0134
8 0.0054
24 0.00403
96 0.00298
720 0.00298
Control Room Filtered
   7
0 0.000796
0.305556 0.000736
2 0.000642
8 0.000243
24 0.000175
96 0.000128
720 0.000128
*dose locations
   3
*location name, compartment number and x/q table
EAB
   2
   1
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
LPZ
   2
   2
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
Control Room
   3
```

```
   0
*br model
   1
   2
0 0.00035
720 0.00035
*of model
   1
   4
0 1
24 0.6
96 0.4
720 0.4
*location x/q input to be included
   1
*number of intake combinations
   3
*intake combinations
2 6 3
3 6 4
4 6 3
*time step count
   3
0 1e-06
0.001 0.02
720 0.02
*show plant, scenario, event, step, model
   1
   1
   1
   0
   1

 ######################################################################
       RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:04:44
 ######################################################################

 ######################################################################
                     Plant Description
 ######################################################################

 Number of Nuclides = 107

 Inventory Power =   2.7030E+03 MWth
 Plant Power Level =   8.1058E+02 MWth

 Number of compartments    =   4

 Compartment information

 Compartment number  1  (Source term fraction =   1.0000E+00)
 Name: PCS
 Compartment volume =   4.3298E+05 (Cubic feet)
 Pathways into and out of compartment  1
     Pathway to compartment number   4: SG Tube Leakage

 Compartment number  2
 Name: Environment
 Pathways into and out of compartment  2
     Pathway to compartment number   3: Control Room Unfiltered Makeup
     Pathway to compartment number   3: Control Room Filtered Makeup
     Pathway to compartment number   3: Control Room Unfiltered Inleakage
     Pathway from compartment number 3: Control Room Exhaust
     Pathway from compartment number 4: SRV/ADV Steam Release

 Compartment number  3
 Name: Control Room
 Compartment volume =   3.5923E+04 (Cubic feet)
 Removal devices within compartment:
      Filter(s)
 Pathways into and out of compartment  3
     Pathway to compartment number   2: Control Room Exhaust
     Pathway from compartment number 2: Control Room Unfiltered Makeup
```

```
    Pathway from compartment number 2: Control Room Filtered Makeup
    Pathway from compartment number 2: Control Room Unfiltered Inleakage

Compartment number  4
Name: SGs
Compartment volume =   2.8213E+05 (Cubic feet)
Pathways into and out of compartment  4
    Pathway to compartment number   2: SRV/ADV Steam Release
    Pathway from compartment number 1: SG Tube Leakage

Total number of pathways =   6


#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:04:44
#######################################################################

#######################################################################
                     Scenario Description
#######################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Iodine fractions
     Aerosol     =   0.0000E+00
     Elemental   =   9.7000E-01
     Organic     =   3.0000E-02

COMPARTMENT DATA

Compartment number   1: PCS

Compartment number   2: Environment

Compartment number   3: Control Room

     Compartment Filter Data

      Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   9.9000E+01   9.9000E+01   9.9000E+01
       3.3330E-01    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01
       7.2000E+02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01

Compartment number   4: SGs

PATHWAY DATA

Pathway number  1: SG Tube Leakage

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    5.0050E+00   0.0000E+00   0.0000E+00   0.0000E+00
       8.0000E+00    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  2: Control Room Unfiltered Makeup

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    3.8420E+02   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    6.6000E+02   0.0000E+00   0.0000E+00   0.0000E+00
       3.3330E-01    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  3: Control Room Filtered Makeup

     Pathway Filter: Removal Data
```

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	9.9000E+01	9.9000E+01	9.9000E+01
3.3330E-01	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01

Pathway number 4: Control Room Unfiltered Inleakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Control Room Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	3.8420E+02	0.0000E+00	0.0000E+00	0.0000E+00
2.5000E-02	6.6000E+02	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 6: SRV/ADV Steam Release

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.8450E+01	0.0000E+00	0.0000E+00	0.0000E+00
3.0556E-01	2.6860E+01	0.0000E+00	0.0000E+00	0.0000E+00
5.0000E-01	2.2380E+01	0.0000E+00	0.0000E+00	0.0000E+00
8.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

X/Q DATA

X/Q table 1: EAB

Time (hr)	X/Q (s * m^-3)
0.0000E+00	5.3900E-04
7.2000E+02	5.3900E-04

X/Q table 2: LPZ

Time (hr)	X/Q (s * m^-3)
0.0000E+00	6.6600E-05
2.0000E+00	3.0300E-05
8.0000E+00	2.0400E-05
2.4000E+01	8.6700E-06
9.6000E+01	2.5400E-06
7.2000E+02	2.5400E-06

X/Q table 3: Control Room Unfiltered

Time (hr)	X/Q (s * m^-3)
0.0000E+00	2.1100E-02
3.0556E-01	1.6500E-02
2.0000E+00	1.3400E-02
8.0000E+00	5.4000E-03
2.4000E+01	4.0300E-03
9.6000E+01	2.9800E-03
7.2000E+02	2.9800E-03

X/Q table 4: Control Room Filtered

Time (hr)	X/Q (s * m^-3)
0.0000E+00	7.9600E-04
3.0556E-01	7.3600E-04
2.0000E+00	6.4200E-04
8.0000E+00	2.4300E-04
2.4000E+01	1.7500E-04

```
       9.6000E+01          1.2800E-04
       7.2000E+02          1.2800E-04

LOCATION DATA

     Location EAB is in compartment   2

     Using X/Q Table   1

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location LPZ is in compartment   2

     Using X/Q Table   2

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location Control Room is in compartment   3

     Inleakage X/Q Table Assignments
     Inleakage Path   Source Path  X/Q Table
            2              6           3
            3              6           4
            4              6           3

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       7.2000E+02                3.5000E-04

     Location Occupancy Factor Data
      Time (hr)         Occupancy Factor
       0.0000E+00            1.0000E+00
       2.4000E+01            6.0000E-01
       9.6000E+01            4.0000E-01
       7.2000E+02            4.0000E-01

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
      0.0000E+00       1.0000E-06
      1.0000E-03       2.0000E-02
      7.2000E+02       2.0000E-02

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:04:44
#######################################################################


     ####   #    #  #####  #####   #    #  #####
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #####   #    #    #
    #    #  #    #    #    #       #    #    #
    #    #  #    #    #    #       #    #    #
     ####    ####     #    #        ####     #


#####################################################################
           Dose, Detailed Model and Detailed Inventory Output
#####################################################################
```

Detailed model information at time (H) = 0.0001

EAB Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	7.2205E-11	9.2319E-09	1.2160E-10	4.9249E-10
Accumulated dose (rem)	7.2205E-11	9.2319E-09	1.2160E-10	4.9249E-10

LPZ Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	8.9218E-12	1.1407E-09	1.5025E-11	6.0853E-11
Accumulated dose (rem)	8.9218E-12	1.1407E-09	1.5025E-11	6.0853E-11

Control Room Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.3447E-15	5.8205E-12	7.6665E-14	2.6632E-13
Accumulated dose (rem)	1.3447E-15	5.8205E-12	7.6665E-14	2.6632E-13

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Rb-86	7.0496E+03	8.6639E-05	6.0669E+20	2.6083E+14
Sr-89	7.1647E-02	2.4661E-09	1.6687E+16	2.6509E+09
I-131	2.2440E+06	1.8100E-02	8.3209E+22	8.3028E+16
I-132	3.2027E+06	3.1027E-04	1.4155E+21	1.1850E+17
I-133	4.3842E+06	3.8702E-03	1.7524E+22	1.6222E+17
I-134	4.8038E+06	1.8008E-04	8.0929E+20	1.7774E+17
I-135	4.1143E+06	1.1715E-03	5.2261E+21	1.5223E+17
Xe-133	1.1838E+00	6.3243E-09	2.8636E+16	4.3800E+10
Xe-135	1.3404E+01	5.2487E-09	2.3414E+16	4.9594E+11
Cs-134	7.3303E+05	5.6656E-01	2.5462E+24	2.7122E+16
Cs-136	2.1134E+05	2.8836E-03	1.2769E+22	7.8197E+15
Cs-137	3.9584E+05	4.5509E+00	2.0004E+25	1.4646E+16
I-130	1.1224E+05	5.7551E-05	2.6660E+20	4.1530E+15
Kr-83m	5.2208E+00	2.5304E-10	1.8360E+15	1.9317E+11
Xe-131m	3.0528E-03	3.6447E-11	1.6755E+14	1.1296E+08
Xe-133m	8.4752E-02	1.8888E-10	8.5524E+14	3.1358E+09
Xe-135m	8.7024E+01	9.5534E-10	4.2616E+15	3.2199E+12
Cs-138	4.8217E+06	1.1395E-04	4.9726E+20	1.7840E+17
Cs-134m	1.7704E+05	2.1954E-05	9.8664E+19	6.5507E+15
Rb-88	1.9318E+06	1.6093E-05	1.1013E+20	7.1478E+16
Rb-89	2.4805E+06	1.7847E-05	1.2076E+20	9.1780E+16
Ba-137m	3.0802E+02	5.7273E-10	2.5176E+15	1.1397E+13
Br-82	1.5840E+04	1.4631E-05	1.0745E+20	5.8607E+14
Br-83	2.7294E+05	1.7277E-05	1.2536E+20	1.0099E+16
Br-84	4.7705E+05	6.7771E-06	4.8587E+19	1.7651E+16

PCS Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.9170E+16	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0547E+23	0.0000E+00	0.0000E+00
Organic I (atoms)	3.2620E+21	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1206E+00	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00

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Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   0.0001       Ci           kg          Atoms         Bq
Rb-86                  1.0091E-10  1.2401E-18  8.6841E+06  3.7336E+00
I-131                  3.2121E-08  2.5909E-16  1.1911E+09  1.1885E+03
I-132                  4.5843E-08  4.4412E-18  2.0262E+07  1.6962E+03
I-133                  6.2756E-08  5.5398E-17  2.5084E+08  2.3220E+03
I-134                  6.8761E-08  2.5776E-18  1.1584E+07  2.5442E+03
I-135                  5.8892E-08  1.6770E-17  7.4806E+07  2.1790E+03
Cs-134                 1.0493E-08  8.1097E-15  3.6446E+10  3.8822E+02
Cs-136                 3.0252E-09  4.1276E-17  1.8277E+08  1.1193E+02
Cs-137                 5.6661E-09  6.5141E-14  2.8634E+11  2.0964E+02
I-130                  1.6067E-09  8.2379E-19  3.8161E+06  5.9447E+01
Cs-138                 6.9016E-08  1.6310E-18  7.1176E+06  2.5536E+03

Environment Transport Group Inventory:

                        Present     Release     Integral
Time (h) =   0.0001     Release     Rate/s      Release
Noble gases (atoms)    3.3540E+01  9.3165E+03  1.2662E+03
Elemental I (atoms)    4.4839E+07  1.2455E+10  1.5097E+09
Organic I (atoms)      1.3868E+06  3.8522E+08  4.6692E+07
Aerosols (kg)          2.1770E-15  6.0471E-13  7.3296E-14

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:
```

Time (h) = 0.0001	Ci	kg	Atoms	Bq
I-131	1.2336E-10	9.9504E-19	4.5743E+06	4.5643E+00
I-133	2.4102E-10	2.1276E-19	9.6336E+05	8.9176E+00
I-135	2.2618E-10	6.4404E-20	2.8730E+05	8.3686E+00
Cs-134	4.0297E-11	3.1146E-17	1.3997E+08	1.4910E+00
Cs-136	1.1618E-11	1.5852E-19	7.0194E+05	4.2988E-01
Cs-137	2.1761E-11	2.5018E-16	1.0997E+09	8.0515E-01

Control Room Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	4.8629E+00	0.0000E+00	0.0000E+00
Elemental I (atoms)	5.7980E+06	0.0000E+00	0.0000E+00
Organic I (atoms)	1.7932E+05	0.0000E+00	0.0000E+00
Aerosols (kg)	2.8149E-16	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Rb-86	2.4447E-04	3.0045E-12	2.1039E+13	9.0454E+06
Sr-89	3.3046E-09	1.1375E-16	7.6966E+08	1.2227E+02
I-131	7.7819E-02	6.2770E-10	2.8856E+15	2.8793E+09
I-132	1.1106E-01	1.0760E-11	4.9088E+13	4.1093E+09
I-133	1.5204E-01	1.3421E-10	6.0771E+14	5.6254E+09
I-134	1.6659E-01	6.2447E-12	2.8065E+13	6.1638E+09
I-135	1.4268E-01	4.0628E-11	1.8123E+14	5.2791E+09
Xe-133	5.4599E-08	2.9169E-16	1.3208E+09	2.0202E+03
Xe-135	6.1822E-07	2.4208E-16	1.0799E+09	2.2874E+04
Cs-134	2.5420E-02	1.9647E-08	8.8298E+16	9.4055E+08

Cs-136	7.3291E-03	1.0000E-10	4.4280E+14	2.7118E+08
Cs-137	1.3727E-02	1.5782E-07	6.9372E+17	5.0791E+08
I-130	3.8925E-03	1.9958E-12	9.2453E+12	1.4402E+08
Kr-83m	2.4080E-07	1.1671E-17	8.4680E+07	8.9094E+03
Xe-131m	1.4080E-10	1.6810E-18	7.7278E+06	5.2098E+00
Xe-133m	3.9090E-09	8.7117E-18	3.9446E+07	1.4463E+02
Xe-135m	4.0137E-06	4.4062E-17	1.9655E+08	1.4851E+05
Cs-138	1.6721E-01	3.9515E-12	1.7244E+13	6.1867E+09
Cs-134m	6.1397E-03	7.6133E-13	3.4215E+12	2.2717E+08
Rb-88	6.6991E-02	5.5808E-13	3.8191E+12	2.4787E+09
Rb-89	8.6021E-02	6.1889E-13	4.1877E+12	3.1828E+09
Ba-137m	1.4205E-05	2.6414E-17	1.1611E+08	5.2560E+05
Br-82	5.4930E-04	5.0737E-13	3.7261E+12	2.0324E+07
Br-83	9.4653E-03	5.9915E-13	4.3472E+12	3.5021E+08
Br-84	1.6543E-02	2.3502E-13	1.6849E+12	6.1210E+08

SGs Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.7291E+09	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.6575E+15	0.0000E+00	0.0000E+00
Organic I (atoms)	1.1312E+14	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7757E-07	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 0.0250

EAB Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.3530E-05	1.7408E-03	2.2760E-05	9.2778E-05
Accumulated dose (rem)	1.3531E-05	1.7409E-03	2.2760E-05	9.2778E-05

LPZ Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.6719E-06	2.1510E-04	2.8123E-06	1.1464E-05
Accumulated dose (rem)	1.6719E-06	2.1510E-04	2.8123E-06	1.1464E-05

Control Room Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.0214E-07	4.4515E-04	5.8156E-06	2.0366E-05
Accumulated dose (rem)	1.0214E-07	4.4515E-04	5.8156E-06	2.0366E-05

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq

Rb-86	7.1197E+03	8.7500E-05	6.1272E+20	2.6343E+14
Sr-89	3.4560E+01	1.1896E-06	8.0492E+18	1.2787E+12
I-131	2.2662E+06	1.8280E-02	8.4032E+22	8.3849E+16
I-132	3.2105E+06	3.1103E-04	1.4190E+21	1.1879E+17
I-133	4.4243E+06	3.9056E-03	1.7684E+22	1.6370E+17
I-134	4.7572E+06	1.7833E-04	8.0143E+20	1.7602E+17
I-135	4.1445E+06	1.1802E-03	5.2645E+21	1.5335E+17
Xe-133	5.9044E+02	3.1544E-06	1.4283E+19	2.1846E+13
Xe-135	6.6926E+03	2.6207E-06	1.1691E+19	2.4763E+14
Cs-134	7.4034E+05	5.7221E-01	2.5716E+24	2.7393E+16
Cs-136	2.1344E+05	2.9122E-03	1.2896E+22	7.8973E+15
Cs-137	3.9979E+05	4.5963E+00	2.0204E+25	1.4792E+16
I-130	1.1321E+05	5.8045E-05	2.6889E+20	4.1887E+15
Kr-83m	2.5911E+03	1.2559E-07	9.1121E+17	9.5871E+13
Xe-131m	1.5233E+00	1.8186E-08	8.3601E+16	5.6361E+10
Xe-133m	4.2270E+01	9.4205E-08	4.2655E+17	1.5640E+12
Xe-135m	4.2819E+04	4.7006E-07	2.0969E+18	1.5843E+15
Cs-138	4.7157E+06	1.1145E-04	4.8633E+20	1.7448E+17
Cs-134m	1.7775E+05	2.2042E-05	9.9058E+19	6.5768E+15
Rb-88	1.8409E+06	1.5336E-05	1.0495E+20	6.8111E+16
Rb-89	2.3403E+06	1.6838E-05	1.1393E+20	8.6591E+16
Ba-137m	1.4269E+05	2.6532E-07	1.1663E+18	5.2795E+15
Br-82	1.5990E+04	1.4769E-05	1.0847E+20	5.9163E+14
Br-83	2.7368E+05	1.7324E-05	1.2570E+20	1.0126E+16
Br-84	4.6637E+05	6.6255E-06	4.7499E+19	1.7256E+16

PCS Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.9492E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0646E+23	0.0000E+00	0.0000E+00
Organic I (atoms)	3.2926E+21	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1717E+00	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Rb-86	1.9030E-05	2.3388E-13	1.6377E+12	7.0411E+05
Sr-89	9.2374E-08	3.1796E-15	2.1514E+10	3.4178E+03
I-131	6.0572E-03	4.8859E-11	2.2461E+14	2.2412E+08
I-132	8.5811E-03	8.3133E-13	3.7927E+12	3.1750E+08
I-133	1.1826E-02	1.0439E-11	4.7268E+13	4.3755E+08
I-134	1.2715E-02	4.7665E-13	2.1421E+12	4.7047E+08
I-135	1.1078E-02	3.1544E-12	1.4071E+13	4.0988E+08
Xe-133	1.5782E-06	8.4312E-15	3.8176E+10	5.8392E+04
Xe-135	1.7889E-05	7.0049E-15	3.1248E+10	6.6188E+05
Cs-134	1.9788E-03	1.5294E-09	6.8735E+15	7.3217E+07
Cs-136	5.7050E-04	7.7840E-12	3.4468E+13	2.1108E+07
Cs-137	1.0686E-03	1.2285E-08	5.4002E+16	3.9538E+07
I-130	3.0259E-04	1.5515E-13	7.1870E+11	1.1196E+07
Kr-83m	6.9257E-06	3.3568E-16	2.4355E+09	2.5625E+05
Xe-131m	4.0715E-09	4.8608E-17	2.2345E+08	1.5064E+02
Xe-133m	1.1298E-07	2.5180E-16	1.1401E+09	4.1804E+03
Xe-135m	1.1445E-04	1.2564E-15	5.6046E+09	4.2346E+06
Cs-138	1.2604E-02	2.9788E-13	1.2999E+12	4.6637E+08
Cs-134m	4.7510E-04	5.8914E-14	2.6477E+11	1.7579E+07

Rb-88	4.9203E-03	4.0990E-14	2.8051E+11	1.8205E+08
Rb-89	6.2553E-03	4.5005E-14	3.0452E+11	2.3144E+08
Ba-137m	3.8139E-04	7.0916E-16	3.1173E+09	1.4111E+07
Br-82	4.2739E-05	3.9477E-14	2.8992E+11	1.5813E+06
Br-83	7.3152E-04	4.6305E-14	3.3597E+11	2.7066E+07
Br-84	1.2465E-03	1.7709E-14	1.2696E+11	4.6122E+07

Environment Transport Group Inventory:

Time (h) = 0.0250	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.8428E+10	4.1561E+08	7.8827E+10
Elemental I (atoms)	1.0262E+14	1.5003E+12	2.8455E+14
Organic I (atoms)	3.1738E+12	4.6400E+10	8.8005E+12
Aerosols (kg)	4.9851E-09	7.2882E-11	1.3823E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Rb-86	7.2696E-08	8.9343E-16	6.2562E+09	2.6898E+03
Sr-89	3.5288E-10	1.2146E-17	8.2187E+07	1.3056E+01
I-131	2.3139E-05	1.8664E-13	8.5801E+11	8.5615E+05
I-132	3.2781E-05	3.1758E-15	1.4489E+10	1.2129E+06
I-133	4.5175E-05	3.9879E-14	1.8057E+11	1.6715E+06
I-134	4.8574E-05	1.8208E-15	8.1831E+09	1.7972E+06
I-135	4.2318E-05	1.2050E-14	5.3754E+10	1.5658E+06
Xe-133	6.0288E-09	3.2208E-17	1.4584E+08	2.2306E+02
Xe-135	6.8336E-08	2.6759E-17	1.1937E+08	2.5284E+03

Cs-134	7.5593E-06	5.8426E-12	2.6257E+13	2.7970E+05
Cs-136	2.1794E-06	2.9736E-14	1.3167E+11	8.0636E+04
Cs-137	4.0821E-06	4.6931E-11	2.0629E+14	1.5104E+05
I-130	1.1559E-06	5.9267E-16	2.7455E+09	4.2769E+04
Kr-83m	2.6457E-08	1.2823E-18	9.3040E+06	9.7890E+02
Xe-131m	1.5553E-11	1.8569E-19	8.5362E+05	5.7548E-01
Xe-133m	4.3161E-10	9.6189E-19	4.3554E+06	1.5969E+01
Xe-135m	4.3721E-07	4.7996E-18	2.1410E+07	1.6177E+04
Cs-138	4.8150E-05	1.1379E-15	4.9657E+09	1.7816E+06
Cs-134m	1.8149E-06	2.2506E-16	1.0114E+09	6.7153E+04
Rb-88	1.8796E-05	1.5658E-16	1.0716E+09	6.9546E+05
Rb-89	2.3896E-05	1.7192E-16	1.1633E+09	8.8414E+05
Ba-137m	1.4569E-06	2.7091E-18	1.1908E+07	5.3906E+04
Br-82	1.6327E-07	1.5080E-16	1.1075E+09	6.0409E+03
Br-83	2.7945E-06	1.7689E-16	1.2834E+09	1.0340E+05
Br-84	4.7619E-06	6.7650E-17	4.8499E+08	1.7619E+05

Control Room Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.0113E+08	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0870E+12	0.0000E+00	0.0000E+00
Organic I (atoms)	3.3619E+10	0.0000E+00	0.0000E+00
Aerosols (kg)	5.2806E-11	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Rb-86	1.2318E-01	1.5139E-09	1.0601E+16	4.5578E+09

Sr-89	5.9794E-04	2.0582E-11	1.3926E+14	2.2124E+07
I-131	3.9209E+01	3.1627E-07	1.4539E+18	1.4507E+12
I-132	5.5546E+01	5.3813E-09	2.4551E+16	2.0552E+12
I-133	7.6549E+01	6.7574E-08	3.0597E+17	2.8323E+12
I-134	8.2308E+01	3.0854E-09	1.3866E+16	3.0454E+12
I-135	7.1708E+01	2.0419E-08	9.1085E+16	2.6532E+12
Xe-133	1.0216E-02	5.4576E-11	2.4712E+14	3.7798E+08
Xe-135	1.1579E-01	4.5343E-11	2.0227E+14	4.2844E+09
Cs-134	1.2809E+01	9.9002E-06	4.4493E+19	4.7394E+11
Cs-136	3.6929E+00	5.0387E-08	2.2312E+17	1.3664E+11
Cs-137	6.9171E+00	7.9524E-05	3.4956E+20	2.5593E+11
I-130	1.9587E+00	1.0043E-09	4.6522E+15	7.2471E+10
Kr-83m	4.4831E-02	2.1729E-12	1.5765E+13	1.6587E+09
Xe-131m	2.6355E-05	3.1465E-13	1.4464E+12	9.7514E+05
Xe-133m	7.3135E-04	1.6299E-12	7.3801E+12	2.7060E+07
Xe-135m	7.4084E-01	8.1329E-12	3.6279E+13	2.7411E+10
Cs-138	8.1590E+01	1.9282E-09	8.4144E+15	3.0188E+12
Cs-134m	3.0754E+00	3.8136E-10	1.7139E+15	1.1379E+11
Rb-88	3.1850E+01	2.6533E-10	1.8157E+15	1.1784E+12
Rb-89	4.0491E+01	2.9132E-10	1.9712E+15	1.4982E+12
Ba-137m	2.4688E+00	4.5905E-12	2.0178E+13	9.1344E+10
Br-82	2.7665E-01	2.5554E-10	1.8767E+15	1.0236E+10
Br-83	4.7352E+00	2.9974E-10	2.1748E+15	1.7520E+11
Br-84	8.0690E+00	1.1463E-10	8.2182E+14	2.9855E+11

SGs Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.1026E+14	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.8419E+18	0.0000E+00	0.0000E+00
Organic I (atoms)	5.6967E+16	0.0000E+00	0.0000E+00
Aerosols (kg)	8.9479E-05	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 0.3056

EAB Doses:

Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.7291E-03	2.5759E-01	2.8407E-03	1.3443E-02
Accumulated dose (rem)	1.7426E-03	2.5933E-01	2.8635E-03	1.3535E-02

LPZ Doses:

Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.1365E-04	3.1828E-02	3.5101E-04	1.6610E-03
Accumulated dose (rem)	2.1532E-04	3.2043E-02	3.5382E-04	1.6725E-03

Control Room Doses:

Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.0431E-04	1.0496E+00	1.1330E-02	4.7929E-02
Accumulated dose (rem)	2.0441E-04	1.0501E+00	1.1335E-02	4.7949E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Rb-86	7.1152E+03	8.7445E-05	6.1233E+20	2.6326E+14
Sr-89	2.9662E+02	1.0210E-05	6.9084E+19	1.0975E+13
I-131	2.2635E+06	1.8258E-02	8.3931E+22	8.3749E+16
I-132	2.9496E+06	2.8575E-04	1.3037E+21	1.0914E+17
I-133	4.3823E+06	3.8685E-03	1.7516E+22	1.6215E+17
I-134	3.8101E+06	1.4282E-04	6.4187E+20	1.4097E+17
I-135	4.0236E+06	1.1457E-03	5.1109E+21	1.4887E+17
Xe-133	7.1896E+03	3.8410E-05	1.7392E+20	2.6602E+14
Xe-135	8.4138E+04	3.2947E-05	1.4697E+20	3.1131E+15
Cs-134	7.4019E+05	5.7210E-01	2.5711E+24	2.7387E+16
Cs-136	2.1327E+05	2.9099E-03	1.2885E+22	7.8909E+15
Cs-137	3.9972E+05	4.5954E+00	2.0200E+25	1.4789E+16
I-130	1.1142E+05	5.7127E-05	2.6464E+20	4.1225E+15
Kr-83m	2.8902E+04	1.4008E-06	1.0164E+19	1.0694E+15
Xe-131m	1.8633E+01	2.2245E-07	1.0226E+18	6.8941E+11
Xe-133m	5.1414E+02	1.1458E-06	5.1882E+18	1.9023E+13
Xe-135m	3.6393E+05	3.9952E-06	1.7822E+19	1.3466E+16
Cs-138	3.2817E+06	7.7554E-05	3.3844E+20	1.2142E+17
Cs-134m	1.6619E+05	2.0608E-05	9.2615E+19	6.1490E+15
Rb-88	9.5555E+05	7.9603E-06	5.4475E+19	3.5355E+16
Rb-89	1.0859E+06	7.8130E-06	5.2866E+19	4.0180E+16
Ba-137m	4.3582E+05	8.1038E-07	3.5622E+18	1.6125E+16
Br-82	1.5899E+04	1.4685E-05	1.0785E+20	5.8826E+14
Br-83	2.5225E+05	1.5967E-05	1.1585E+20	9.3332E+15
Br-84	3.2307E+05	4.5897E-06	3.2904E+19	1.1954E+16

PCS Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.5509E+20	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0575E+23	0.0000E+00	0.0000E+00
Organic I (atoms)	3.2708E+21	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1706E+00	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Rb-86	2.8427E-03	3.4936E-11	2.4464E+14	1.0518E+08
Sr-89	1.1850E-04	4.0790E-12	2.7600E+13	4.3846E+06
I-131	9.0430E-01	7.2942E-09	3.3532E+16	3.3459E+10
I-132	1.1784E+00	1.1416E-10	5.2084E+14	4.3601E+10
I-133	1.7508E+00	1.5455E-09	6.9981E+15	6.4780E+10
I-134	1.5222E+00	5.7060E-11	2.5644E+14	5.6321E+10
I-135	1.6075E+00	4.5774E-10	2.0419E+15	5.9478E+10
Xe-133	2.8724E-03	1.5345E-11	6.9483E+13	1.0628E+08
Xe-135	3.3615E-02	1.3163E-11	5.8718E+13	1.2437E+09
Cs-134	2.9572E-01	2.2856E-07	1.0272E+18	1.0942E+10

Cs-136	8.5204E-02	1.1625E-09	5.1478E+15	3.1526E+09
Cs-137	1.5969E-01	1.8359E-06	8.0703E+18	5.9087E+09
I-130	4.4513E-02	2.2823E-11	1.0573E+14	1.6470E+09
Kr-83m	1.1547E-02	5.5965E-13	4.0606E+12	4.2723E+08
Xe-131m	7.4441E-06	8.8873E-14	4.0855E+11	2.7543E+05
Xe-133m	2.0541E-04	4.5778E-13	2.0728E+12	7.6000E+06
Xe-135m	1.4540E-01	1.5962E-12	7.1202E+12	5.3797E+09
Cs-138	1.3111E+00	3.0984E-11	1.3521E+14	4.8510E+10
Cs-134m	6.6396E-02	8.2333E-12	3.7001E+13	2.4567E+09
Rb-88	3.8176E-01	3.1803E-12	2.1764E+13	1.4125E+10
Rb-89	4.3385E-01	3.1214E-12	2.1121E+13	1.6053E+10
Ba-137m	1.7412E-01	3.2376E-13	1.4232E+12	6.4424E+09
Br-82	6.3519E-03	5.8671E-12	4.3088E+13	2.3502E+08
Br-83	1.0078E-01	6.3792E-12	4.6285E+13	3.7288E+09
Br-84	1.2907E-01	1.8337E-12	1.3146E+13	4.7757E+09

Environment Transport Group Inventory:

Time (h) = 0.3056	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	5.1112E+12	7.0988E+10	1.4186E+14
Elemental I (atoms)	1.5222E+15	2.1142E+13	4.2251E+16
Organic I (atoms)	4.7080E+13	6.5389E+11	1.3067E+15
Aerosols (kg)	7.4427E-08	1.0337E-09	2.0657E-06

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq

Rb-86	1.6811E-05	2.0661E-13	1.4468E+12	6.2202E+05
Sr-89	7.0082E-07	2.4123E-14	1.6323E+11	2.5931E+04
I-131	5.3480E-03	4.3138E-11	1.9831E+14	1.9788E+08
I-132	6.9691E-03	6.7516E-13	3.0802E+12	2.5786E+08
I-133	1.0354E-02	9.1403E-12	4.1387E+13	3.8311E+08
I-134	9.0022E-03	3.3745E-13	1.5166E+12	3.3308E+08
I-135	9.5067E-03	2.7070E-12	1.2076E+13	3.5175E+08
Xe-133	1.6987E-05	9.0752E-14	4.1092E+11	6.2853E+05
Xe-135	1.9880E-04	7.7846E-14	3.4726E+11	7.3555E+06
Cs-134	1.7489E-03	1.3517E-09	6.0748E+15	6.4709E+07
Cs-136	5.0390E-04	6.8753E-12	3.0444E+13	1.8644E+07
Cs-137	9.4442E-04	1.0858E-08	4.7727E+16	3.4944E+07
I-130	2.6325E-04	1.3498E-13	6.2527E+11	9.7403E+06
Kr-83m	6.8287E-05	3.3097E-15	2.4014E+10	2.5266E+06
Xe-131m	4.4024E-08	5.2559E-16	2.4162E+09	1.6289E+03
Xe-133m	1.2148E-06	2.7073E-15	1.2258E+10	4.4947E+04
Xe-135m	8.5988E-04	9.4396E-15	4.2109E+10	3.1816E+07
Cs-138	7.7537E-03	1.8324E-13	7.9964E+11	2.8689E+08
Cs-134m	3.9266E-04	4.8691E-14	2.1883E+11	1.4529E+07
Rb-88	2.2577E-03	1.8808E-14	1.2871E+11	8.3535E+07
Rb-89	2.5658E-03	1.8460E-14	1.2491E+11	9.4935E+07
Ba-137m	1.0297E-03	1.9147E-15	8.4165E+09	3.8100E+07
Br-82	3.7565E-05	3.4698E-14	2.5482E+11	1.3899E+06
Br-83	5.9600E-04	3.7727E-14	2.7373E+11	2.2052E+07
Br-84	7.6333E-04	1.0844E-14	7.7744E+10	2.8243E+07

Control Room Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	8.3897E+11	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.4987E+14	0.0000E+00	0.0000E+00
Organic I (atoms)	7.7279E+12	0.0000E+00	0.0000E+00
Aerosols (kg)	1.2217E-08	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter

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Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.3056       Ci           kg         Atoms         Bq
Rb-86                  1.5049E+00  1.8496E-08  1.2952E+17  5.5683E+10
Sr-89                  6.2737E-02  2.1595E-09  1.4612E+16  2.3213E+09
I-131                  4.7875E+02  3.8617E-06  1.7752E+19  1.7714E+13
I-132                  6.2387E+02  6.0440E-08  2.7574E+17  2.3083E+13
I-133                  9.2690E+02  8.1823E-07  3.7049E+18  3.4295E+13
I-134                  8.0586E+02  3.0209E-08  1.3576E+17  2.9817E+13
I-135                  8.5103E+02  2.4233E-07  1.0810E+18  3.1488E+13
Xe-133                 1.5207E+00  8.1241E-09  3.6785E+16  5.6265E+10
Xe-135                 1.7796E+01  6.9687E-09  3.1086E+16  6.5846E+11
Cs-134                 1.5656E+02  1.2100E-04  5.4381E+20  5.7927E+12
Cs-136                 4.5108E+01  6.1547E-07  2.7253E+18  1.6690E+12
Cs-137                 8.4544E+01  9.7197E-04  4.2725E+21  3.1281E+12
I-130                  2.3566E+01  1.2083E-08  5.5974E+16  8.7194E+11
Kr-83m                 6.1130E+00  2.9629E-10  2.1497E+15  2.2618E+11
Xe-131m                3.9410E-03  4.7050E-11  2.1629E+14  1.4582E+08
Xe-133m                1.0875E-01  2.4235E-10  1.0974E+15  4.0236E+09
Xe-135m                7.6976E+01  8.4503E-10  3.7695E+15  2.8481E+12
Cs-138                 6.9411E+02  1.6404E-08  7.1583E+16  2.5682E+13
Cs-134m                3.5151E+01  4.3588E-09  1.9589E+16  1.3006E+12
Rb-88                  2.0211E+02  1.6837E-09  1.1522E+16  7.4780E+12
Rb-89                  2.2969E+02  1.6525E-09  1.1182E+16  8.4985E+12
Ba-137m                9.2181E+01  1.7140E-10  7.5344E+14  3.4107E+12
Br-82                  3.3628E+00  3.1061E-09  2.2812E+16  1.2442E+11
Br-83                  5.3353E+01  3.3773E-09  2.4504E+16  1.9741E+12
Br-84                  6.8333E+01  9.7076E-10  6.9596E+15  2.5283E+12

SGs Transport Group Inventory:

                                                Overlying
Time (h) =   0.3056    Atmosphere     Sump        Pool
Noble gases (atoms)    7.5104E+16  0.0000E+00  0.0000E+00
Elemental I (atoms)    2.2368E+19  0.0000E+00  0.0000E+00
Organic I (atoms)      6.9180E+17  0.0000E+00  0.0000E+00
Aerosols (kg)          1.0936E-03  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.3056     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

                        Pathway
Time (h) =   0.3056      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.3333

EAB Doses:

Time (h) =   0.3333     Whole Body    Thyroid      Skin       TEDE
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Delta dose (rem)	1.3899E-04	2.2632E-02	2.2524E-04	1.1676E-03
Accumulated dose (rem)	1.8816E-03	2.8196E-01	3.0887E-03	1.4703E-02

LPZ Doses:

Time (h) = 0.3333	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.7173E-05	2.7964E-03	2.7831E-05	1.4427E-04
Accumulated dose (rem)	2.3249E-04	3.4840E-02	3.8165E-04	1.8167E-03

Control Room Doses:

Time (h) = 0.3333	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	5.1703E-05	2.8500E-01	2.8366E-03	1.3005E-02
Accumulated dose (rem)	2.5611E-04	1.3351E+00	1.4172E-02	6.0955E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Rb-86	7.1148E+03	8.7440E-05	6.1230E+20	2.6325E+14
Sr-89	3.1320E+02	1.0780E-05	7.2946E+19	1.1588E+13
I-131	2.2632E+06	1.8255E-02	8.3921E+22	8.3739E+16
I-132	2.9250E+06	2.8337E-04	1.2928E+21	1.0822E+17
I-133	4.3782E+06	3.8649E-03	1.7500E+22	1.6199E+17
I-134	3.7273E+06	1.3972E-04	6.2793E+20	1.3791E+17
I-135	4.0118E+06	1.1424E-03	5.0959E+21	1.4844E+17
Xe-133	7.8382E+03	4.1875E-05	1.8961E+20	2.9001E+14
Xe-135	9.1911E+04	3.5991E-05	1.6055E+20	3.4007E+15
Cs-134	7.4018E+05	5.7208E-01	2.5710E+24	2.7387E+16
Cs-136	2.1325E+05	2.9096E-03	1.2884E+22	7.8903E+15
Cs-137	3.9971E+05	4.5953E+00	2.0200E+25	1.4789E+16
I-130	1.1124E+05	5.7038E-05	2.6422E+20	4.1160E+15
Kr-83m	3.1232E+04	1.5138E-06	1.0983E+19	1.1556E+15
Xe-131m	2.0323E+01	2.4263E-07	1.1154E+18	7.5194E+11
Xe-133m	5.6045E+02	1.2490E-06	5.6556E+18	2.0737E+13
Xe-135m	3.8330E+05	4.2078E-06	1.8770E+19	1.4182E+16
Cs-138	3.1661E+06	7.4823E-05	3.2652E+20	1.1715E+17
Cs-134m	1.6509E+05	2.0471E-05	9.2001E+19	6.1083E+15
Rb-88	8.9555E+05	7.4605E-06	5.1055E+19	3.3135E+16
Rb-89	1.0065E+06	7.2417E-06	4.9001E+19	3.7242E+16
Ba-137m	4.3091E+05	8.0125E-07	3.5221E+18	1.5944E+16
Br-82	1.5890E+04	1.4677E-05	1.0779E+20	5.8793E+14
Br-83	2.5022E+05	1.5839E-05	1.1492E+20	9.2582E+15
Br-84	3.1155E+05	4.4260E-06	3.1731E+19	1.1527E+16

PCS Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.8668E+20	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0569E+23	0.0000E+00	0.0000E+00
Organic I (atoms)	3.2687E+21	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1705E+00	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Rb-86	3.0911E-03	3.7989E-11	2.6602E+14	1.1437E+08

Sr-89	1.3607E-04	4.6837E-12	3.1692E+13	5.0347E+06
I-131	9.8328E-01	7.9313E-09	3.6461E+16	3.6381E+10
I-132	1.2708E+00	1.2311E-10	5.6167E+14	4.7019E+10
I-133	1.9022E+00	1.6791E-09	7.6030E+15	7.0380E+10
I-134	1.6194E+00	6.0704E-11	2.7281E+14	5.9917E+10
I-135	1.7430E+00	4.9632E-10	2.2140E+15	6.4491E+10
Xe-133	3.4054E-03	1.8193E-11	8.2376E+13	1.2600E+08
Xe-135	3.9932E-02	1.5637E-11	6.9753E+13	1.4775E+09
Cs-134	3.2158E-01	2.4855E-07	1.1170E+18	1.1898E+10
Cs-136	9.2649E-02	1.2641E-09	5.5976E+15	3.4280E+09
Cs-137	1.7366E-01	1.9965E-06	8.7760E+18	6.4253E+09
I-130	4.8331E-02	2.4781E-11	1.1479E+14	1.7882E+09
Kr-83m	1.3569E-02	6.5767E-13	4.7718E+12	5.0206E+08
Xe-131m	8.8294E-06	1.0541E-13	4.8458E+11	3.2669E+05
Xe-133m	2.4350E-04	5.4266E-13	2.4571E+12	9.0093E+06
Xe-135m	1.6653E-01	1.8281E-12	8.1550E+12	6.1616E+09
Cs-138	1.3755E+00	3.2508E-11	1.4186E+14	5.0895E+10
Cs-134m	7.1725E-02	8.8941E-12	3.9971E+13	2.6538E+09
Rb-88	3.8908E-01	3.2413E-12	2.2181E+13	1.4396E+10
Rb-89	4.3730E-01	3.1463E-12	2.1289E+13	1.6180E+10
Ba-137m	1.8722E-01	3.4811E-13	1.5302E+12	6.9270E+09
Br-82	6.9036E-03	6.3767E-12	4.6831E+13	2.5543E+08
Br-83	1.0871E-01	6.8815E-12	4.9929E+13	4.0223E+09
Br-84	1.3536E-01	1.9229E-12	1.3786E+13	5.0082E+09

Environment Transport Group Inventory:

Time (h) = 0.3333	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	6.6224E+12	1.2736E+11	1.6800E+14
Elemental I (atoms)	1.8100E+15	3.4810E+13	4.5917E+16
Organic I (atoms)	5.5981E+13	1.0766E+12	1.4201E+15
Aerosols (kg)	8.8552E-08	1.7030E-09	2.2464E-06

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Pathway

Time (h) = 0.3333	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Rb-86	1.7567E-05	2.1589E-13	1.5118E+12	6.4996E+05
Sr-89	7.7329E-07	2.6617E-14	1.8011E+11	2.8612E+04
I-131	5.5879E-03	4.5073E-11	2.0720E+14	2.0675E+08
I-132	7.2219E-03	6.9965E-13	3.1920E+12	2.6721E+08
I-133	1.0810E-02	9.5425E-12	4.3208E+13	3.9996E+08
I-134	9.2029E-03	3.4498E-13	1.5504E+12	3.4051E+08
I-135	9.9054E-03	2.8206E-12	1.2582E+13	3.6650E+08
Xe-133	1.9353E-05	1.0339E-13	4.6814E+11	7.1605E+05
Xe-135	2.2693E-04	8.8863E-14	3.9640E+11	8.3965E+06
Cs-134	1.8275E-03	1.4125E-09	6.3479E+15	6.7619E+07
Cs-136	5.2652E-04	7.1840E-12	3.1811E+13	1.9481E+07
Cs-137	9.8689E-04	1.1346E-08	4.9874E+16	3.6515E+07
I-130	2.7466E-04	1.4083E-13	6.5237E+11	1.0162E+07
Kr-83m	7.7113E-05	3.7375E-15	2.7118E+10	2.8532E+06
Xe-131m	5.0177E-08	5.9905E-16	2.7539E+09	1.8566E+03
Xe-133m	1.3838E-06	3.0839E-15	1.3964E+10	5.1200E+04
Xe-135m	9.4638E-04	1.0389E-14	4.6345E+10	3.5016E+07
Cs-138	7.8172E-03	1.8474E-13	8.0618E+11	2.8924E+08
Cs-134m	4.0761E-04	5.0545E-14	2.2715E+11	1.5082E+07
Rb-88	2.2112E-03	1.8420E-14	1.2606E+11	8.1813E+07
Rb-89	2.4852E-03	1.7880E-14	1.2098E+11	9.1952E+07
Ba-137m	1.0639E-03	1.9783E-15	8.6961E+09	3.9366E+07
Br-82	3.9233E-05	3.6238E-14	2.6614E+11	1.4516E+06
Br-83	6.1781E-04	3.9107E-14	2.8375E+11	2.2859E+07
Br-84	7.6923E-04	1.0928E-14	7.8345E+10	2.8462E+07

Control Room Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	9.5473E+11	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.6095E+14	0.0000E+00	0.0000E+00
Organic I (atoms)	8.0705E+12	0.0000E+00	0.0000E+00
Aerosols (kg)	1.2766E-08	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter

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Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.3333       Ci           kg         Atoms         Bq
Rb-86                  1.6415E+00  2.0174E-08  1.4127E+17  6.0737E+10
Sr-89                  7.2261E-02  2.4873E-09  1.6830E+16  2.6737E+09
I-131                  5.2217E+02  4.2119E-06  1.9362E+19  1.9320E+13
I-132                  6.7486E+02  6.5380E-08  2.9828E+17  2.4970E+13
I-133                  1.0101E+03  8.9171E-07  4.0376E+18  3.7375E+13
I-134                  8.5997E+02  3.2237E-08  1.4488E+17  3.1819E+13
I-135                  9.2562E+02  2.6357E-07  1.1757E+18  3.4248E+13
Xe-133                 1.8084E+00  9.6614E-09  4.3746E+16  6.6912E+10
Xe-135                 2.1206E+01  8.3039E-09  3.7042E+16  7.8462E+11
Cs-134                 1.7078E+02  1.3199E-04  5.9319E+20  6.3187E+12
Cs-136                 4.9202E+01  6.7132E-07  2.9726E+18  1.8205E+12
Cs-137                 9.2221E+01  1.0602E-03  4.6605E+21  3.4122E+12
I-130                  2.5666E+01  1.3160E-08  6.0962E+16  9.4965E+11
Kr-83m                 7.2059E+00  3.4926E-10  2.5341E+15  2.6662E+11
Xe-131m                4.6889E-03  5.5979E-11  2.5734E+14  1.7349E+08
Xe-133m                1.2931E-01  2.8818E-10  1.3049E+15  4.7844E+09
Xe-135m                8.8436E+01  9.7084E-10  4.3307E+15  3.2721E+12
Cs-138                 7.3049E+02  1.7263E-08  7.5335E+16  2.7028E+13
Cs-134m                3.8090E+01  4.7232E-09  2.1227E+16  1.4093E+12
Rb-88                  2.0662E+02  1.7213E-09  1.1780E+16  7.6451E+12
Rb-89                  2.3223E+02  1.6708E-09  1.1306E+16  8.5926E+12
Ba-137m                9.9421E+01  1.8487E-10  8.1262E+14  3.6786E+12
Br-82                  3.6662E+00  3.3863E-09  2.4869E+16  1.3565E+11
Br-83                  5.7732E+01  3.6544E-09  2.6515E+16  2.1361E+12
Br-84                  7.1882E+01  1.0212E-09  7.3211E+15  2.6596E+12

SGs Transport Group Inventory:

                                                Overlying
Time (h) =   0.3333    Atmosphere     Sump        Pool
Noble gases (atoms)    8.9216E+16  0.0000E+00  0.0000E+00
Elemental I (atoms)    2.4384E+19  0.0000E+00  0.0000E+00
Organic I (atoms)      7.5416E+17  0.0000E+00  0.0000E+00
Aerosols (kg)          1.1929E-03  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.3333     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

                        Pathway
Time (h) =   0.3333      Filter
Noble gases (atoms)    0.0000E+00
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Elemental I (atoms)     0.0000E+00
Organic I (atoms)       0.0000E+00
Aerosols (kg)           0.0000E+00

Detailed model information at time (H) =    0.5000

EAB Doses:

Time (h) =   0.5000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.0221E-03  1.7794E-01  1.6408E-03  9.1075E-03
Accumulated dose (rem)  2.9037E-03  4.5990E-01  4.7296E-03  2.3811E-02

LPZ Doses:

Time (h) =   0.5000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.2629E-04  2.1987E-02  2.0275E-04  1.1253E-03
Accumulated dose (rem)  3.5879E-04  5.6827E-02  5.8440E-04  2.9421E-03

Control Room Doses:

Time (h) =   0.5000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.0898E-04  1.2174E+00  1.1374E-02  5.5530E-02
Accumulated dose (rem)  4.6509E-04  2.5525E+00  2.5546E-02  1.1648E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.5000       Ci           kg         Atoms         Bq
Rb-86                 7.1121E+03  8.7407E-05  6.1207E+20  2.6315E+14
Sr-89                 3.9017E+02  1.3430E-05  9.0874E+19  1.4436E+13
I-131                 2.2616E+06  1.8242E-02  8.3861E+22  8.3679E+16
I-132                 2.7813E+06  2.6945E-04  1.2293E+21  1.0291E+17
I-133                 4.3534E+06  3.8430E-03  1.7401E+22  1.6108E+17
I-134                 3.2667E+06  1.2245E-04  5.5032E+20  1.2087E+17
I-135                 3.9419E+06  1.1224E-03  5.0071E+21  1.4585E+17
Xe-133                1.1720E+04  6.2614E-05  2.8351E+20  4.3364E+14
Xe-135                1.3851E+05  5.4240E-05  2.4196E+20  5.1250E+15
Cs-134                7.4009E+05  5.7201E-01  2.5707E+24  2.7383E+16
Cs-136                2.1315E+05  2.9082E-03  1.2878E+22  7.8865E+15
Cs-137                3.9966E+05  4.5948E+00  2.0197E+25  1.4787E+16
I-130                 1.1019E+05  5.6500E-05  2.6173E+20  4.0772E+15
Kr-83m                4.4314E+04  2.1478E-06  1.5584E+19  1.6396E+15
Xe-131m               3.0470E+01  3.6377E-07  1.6723E+18  1.1274E+12
Xe-133m               8.3746E+02  1.8664E-06  8.4508E+18  3.0986E+13
Xe-135m               4.7263E+05  5.1885E-06  2.3145E+19  1.7487E+16
Cs-138                2.5525E+06  6.0322E-05  2.6324E+20  9.4443E+16
Cs-134m               1.5862E+05  1.9670E-05  8.8397E+19  5.8690E+15
Rb-88                 6.0658E+05  5.0532E-06  3.4581E+19  2.2444E+16
Rb-89                 6.3782E+05  4.5889E-06  3.1050E+19  2.3599E+16
Ba-137m               4.4189E+05  8.2167E-07  3.6118E+18  1.6350E+16
Br-82                 1.5836E+04  1.4627E-05  1.0743E+20  5.8594E+14
Br-83                 2.3838E+05  1.5090E-05  1.0949E+20  8.8202E+15
Br-84                 2.5049E+05  3.5586E-06  2.5512E+19  9.2683E+15

PCS Transport Group Inventory:

                                                 Overlying
Time (h) =   0.5000    Atmosphere     Sump         Pool
Noble gases (atoms)    5.7432E+20  0.0000E+00  0.0000E+00
Elemental I (atoms)    1.0530E+23  0.0000E+00  0.0000E+00
Organic I (atoms)      3.2566E+21  0.0000E+00  0.0000E+00
Aerosols (kg)          5.1699E+00  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.5000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =   0.5000      Filter
```

Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	5.0474E-03	6.2032E-11	4.3438E+14	1.8675E+08
Sr-89	2.7690E-04	9.5313E-12	6.4493E+13	1.0245E+07
I-131	1.6050E+00	1.2946E-08	5.9516E+16	5.9386E+10
I-132	1.9739E+00	1.9123E-10	8.7243E+14	7.3034E+10
I-133	3.0896E+00	2.7274E-09	1.2349E+16	1.1431E+11
I-134	2.3183E+00	8.6905E-11	3.9056E+14	8.5778E+10
I-135	2.7975E+00	7.9659E-10	3.5535E+15	1.0351E+11
Xe-133	8.3193E-03	4.4445E-11	2.0124E+14	3.0781E+08
Xe-135	9.8321E-02	3.8501E-11	1.7175E+14	3.6379E+09
Cs-134	5.2524E-01	4.0596E-07	1.8244E+18	1.9434E+10
Cs-136	1.5127E-01	2.0640E-09	9.1393E+15	5.5970E+09
Cs-137	2.8364E-01	3.2609E-06	1.4334E+19	1.0495E+10
I-130	7.8205E-02	4.0098E-11	1.8575E+14	2.8936E+09
Kr-83m	3.1455E-02	1.5246E-12	1.1062E+13	1.1638E+09
Xe-131m	2.1628E-05	2.5821E-13	1.1870E+12	8.0024E+05
Xe-133m	5.9445E-04	1.3248E-12	5.9986E+12	2.1995E+07
Xe-135m	3.3548E-01	3.6829E-12	1.6429E+13	1.2413E+10
Cs-138	1.8115E+00	4.2810E-11	1.8682E+14	6.7025E+10
Cs-134m	1.1257E-01	1.3959E-11	6.2735E+13	4.1652E+09
Rb-88	4.3049E-01	3.5862E-12	2.4542E+13	1.5928E+10
Rb-89	4.5265E-01	3.2567E-12	2.2036E+13	1.6748E+10
Ba-137m	3.1361E-01	5.8313E-13	2.5633E+12	1.1604E+10
Br-82	1.1239E-02	1.0381E-11	7.6239E+13	4.1584E+08
Br-83	1.6918E-01	1.0709E-11	7.7701E+13	6.2597E+09
Br-84	1.7777E-01	2.5255E-12	1.8106E+13	6.5777E+09

Environment Transport Group Inventory:

Time (h) = 0.5000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.2292E+13	3.0961E+11	4.0767E+14
Elemental I (atoms)	4.0839E+15	5.6721E+13	7.4728E+16
Organic I (atoms)	1.2631E+14	1.7542E+12	2.3112E+15
Aerosols (kg)	2.0051E-07	2.7849E-09	3.6690E-06

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	9.4956E-07	1.1670E-14	8.1719E+10	3.5134E+04
Sr-89	5.2093E-08	1.7931E-15	1.2133E+10	1.9275E+03
I-131	3.0195E-04	2.4356E-12	1.1197E+13	1.1172E+07
I-132	3.7135E-04	3.5976E-14	1.6413E+11	1.3740E+07
I-133	5.8124E-04	5.1309E-13	2.3232E+12	2.1506E+07
I-134	4.3614E-04	1.6349E-14	7.3475E+10	1.6137E+07
I-135	5.2629E-04	1.4986E-13	6.6851E+11	1.9473E+07
Cs-134	9.8811E-05	7.6371E-11	3.4322E+14	3.6560E+06
Cs-136	2.8458E-05	3.8829E-13	1.7194E+12	1.0529E+06
Cs-137	5.3360E-05	6.1346E-10	2.6966E+15	1.9743E+06
I-130	1.4712E-05	7.5435E-15	3.4945E+10	5.4436E+05
Cs-138	3.4079E-04	8.0538E-15	3.5146E+10	1.2609E+07
Cs-134m	2.1178E-05	2.6261E-15	1.1802E+10	7.8359E+05
Rb-88	8.0986E-05	6.7467E-16	4.6170E+09	2.9965E+06
Rb-89	8.5157E-05	6.1267E-16	4.1456E+09	3.1508E+06
Ba-137m	5.8999E-05	1.0970E-16	4.8223E+08	2.1829E+06
Br-82	2.1143E-06	1.9530E-15	1.4343E+10	7.8231E+04
Br-83	3.1827E-05	2.0147E-15	1.4618E+10	1.1776E+06

Br-84	3.3444E-05	4.7512E-16	3.4062E+09	1.2374E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	1.4058E+13
Organic I (atoms)	4.3480E+11
Aerosols (kg)	6.9025E-10

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	8.1171E-06	9.9759E-14	6.9856E+11	3.0033E+05
Sr-89	4.4531E-07	1.5328E-14	1.0372E+11	1.6476E+04
I-131	2.5812E-03	2.0820E-11	9.5711E+13	9.5503E+07
I-132	3.1744E-03	3.0753E-13	1.4030E+12	1.1745E+08
I-133	4.9686E-03	4.3861E-12	1.9860E+13	1.8384E+08
I-134	3.7283E-03	1.3976E-13	6.2809E+11	1.3795E+08
I-135	4.4989E-03	1.2811E-12	5.7146E+12	1.6646E+08
Xe-133	2.1233E-05	1.1344E-13	5.1364E+11	7.8564E+05
Xe-135	2.5078E-04	9.8202E-14	4.3806E+11	9.2789E+06
Cs-134	8.4467E-04	6.5285E-10	2.9340E+15	3.1253E+07
Cs-136	2.4327E-04	3.3192E-12	1.4698E+13	9.0009E+06
Cs-137	4.5614E-04	5.2440E-09	2.3051E+16	1.6877E+07
I-130	1.2577E-04	6.4484E-14	2.9872E+11	4.6533E+06
Kr-83m	8.0305E-05	3.8922E-15	2.8240E+10	2.9713E+06
Xe-131m	5.5205E-08	6.5908E-16	3.0298E+09	2.0426E+03
Xe-133m	1.5173E-06	3.3814E-15	1.5311E+10	5.6138E+04
Xe-135m	8.6201E-04	9.4630E-15	4.2213E+10	3.1894E+07
Cs-138	2.9132E-03	6.8847E-14	3.0044E+11	1.0779E+08
Cs-134m	1.8104E-04	2.2449E-14	1.0089E+11	6.6984E+06
Rb-88	6.9230E-04	5.7673E-15	3.9468E+10	2.5615E+07
Rb-89	7.2795E-04	5.2373E-15	3.5438E+10	2.6934E+07
Ba-137m	5.0434E-04	9.3778E-16	4.1222E+09	1.8661E+07
Br-82	1.8074E-05	1.6694E-14	1.2261E+11	6.6874E+05
Br-83	2.7207E-04	1.7222E-14	1.2496E+11	1.0067E+07
Br-84	2.8589E-04	4.0615E-15	2.9118E+10	1.0578E+07

Control Room Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.0405E+12	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.2018E+14	0.0000E+00	0.0000E+00

Organic I (atoms)	3.7168E+12	0.0000E+00	0.0000E+00
Aerosols (kg)	5.9004E-09	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	4.7656E-06	5.8569E-14	4.1013E+11	1.7633E+05
Sr-89	2.6144E-07	8.9991E-15	6.0892E+10	9.6734E+03
I-131	1.5154E-03	1.2224E-11	5.6193E+13	5.6070E+07
I-132	1.8637E-03	1.8055E-13	8.2372E+11	6.8956E+07
I-133	2.9171E-03	2.5751E-12	1.1660E+13	1.0793E+08
I-134	2.1889E-03	8.2052E-14	3.6875E+11	8.0989E+07
I-135	2.6413E-03	7.5211E-13	3.3551E+12	9.7729E+07
Cs-134	4.9591E-04	3.8329E-10	1.7225E+15	1.8349E+07
Cs-136	1.4282E-04	1.9487E-12	8.6290E+12	5.2845E+06
Cs-137	2.6780E-04	3.0788E-09	1.3534E+16	9.9086E+06
I-130	7.3838E-05	3.7859E-14	1.7538E+11	2.7320E+06
Cs-138	1.7104E-03	4.0420E-14	1.7639E+11	6.3283E+07
Cs-134m	1.0629E-04	1.3180E-14	5.9232E+10	3.9326E+06
Rb-88	4.0645E-04	3.3860E-15	2.3172E+10	1.5039E+07
Rb-89	4.2738E-04	3.0749E-15	2.0806E+10	1.5813E+07
Ba-137m	2.9610E-04	5.5057E-16	2.4202E+09	1.0956E+07
Br-82	1.0611E-05	9.8014E-15	7.1982E+10	3.9262E+05
Br-83	1.5973E-04	1.0111E-14	7.3362E+10	5.9101E+06
Br-84	1.6785E-04	2.3845E-15	1.7095E+10	6.2104E+06

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	7.0556E+13
Organic I (atoms)	0.0000E+00	2.1821E+12
Aerosols (kg)	0.0000E+00	3.4642E-09

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	9.4956E-07	1.1670E-14	8.1719E+10	3.5134E+04
Sr-89	5.2093E-08	1.7931E-15	1.2133E+10	1.9275E+03
I-131	3.0195E-04	2.4356E-12	1.1197E+13	1.1172E+07
I-132	3.7135E-04	3.5976E-14	1.6413E+11	1.3740E+07
I-133	5.8124E-04	5.1309E-13	2.3232E+12	2.1506E+07
I-134	4.3614E-04	1.6349E-14	7.3475E+10	1.6137E+07
I-135	5.2629E-04	1.4986E-13	6.6851E+11	1.9473E+07
Cs-134	9.8811E-05	7.6371E-11	3.4322E+14	3.6560E+06
Cs-136	2.8458E-05	3.8829E-13	1.7194E+12	1.0529E+06
Cs-137	5.3360E-05	6.1346E-10	2.6966E+15	1.9743E+06
I-130	1.4712E-05	7.5435E-15	3.4945E+10	5.4436E+05
Cs-138	3.4079E-04	8.0538E-15	3.5146E+10	1.2609E+07
Cs-134m	2.1178E-05	2.6261E-15	1.1802E+10	7.8359E+05
Rb-88	8.0986E-05	6.7467E-16	4.6170E+09	2.9965E+06
Rb-89	8.5157E-05	6.1267E-16	4.1456E+09	3.1508E+06
Ba-137m	5.8999E-05	1.0970E-16	4.8223E+08	2.1829E+06
Br-82	2.1143E-06	1.9530E-15	1.4343E+10	7.8231E+04
Br-83	3.1827E-05	2.0147E-15	1.4618E+10	1.1776E+06
Br-84	3.3444E-05	4.7512E-16	3.4062E+09	1.2374E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	1.4058E+13
Organic I (atoms)	4.3480E+11
Aerosols (kg)	6.9025E-10

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	5.7151E-06	7.0239E-14	4.9185E+11	2.1146E+05
Sr-89	3.1354E-07	1.0792E-14	7.3025E+10	1.1601E+04
I-131	1.8174E-03	1.4659E-11	6.7389E+13	6.7243E+07
I-132	2.2350E-03	2.1653E-13	9.8785E+11	8.2696E+07
I-133	3.4983E-03	3.0882E-12	1.3983E+13	1.2944E+08
I-134	2.6250E-03	9.8401E-14	4.4223E+11	9.7126E+07
I-135	3.1676E-03	9.0197E-13	4.0236E+12	1.1720E+08
Cs-134	5.9472E-04	4.5966E-10	2.0658E+15	2.2005E+07
Cs-136	1.7128E-04	2.3370E-12	1.0348E+13	6.3374E+06
Cs-137	3.2116E-04	3.6923E-09	1.6230E+16	1.1883E+07
I-130	8.8550E-05	4.5402E-14	2.1032E+11	3.2764E+06
Cs-138	2.0511E-03	4.8474E-14	2.1153E+11	7.5892E+07
Cs-134m	1.2747E-04	1.5806E-14	7.1034E+10	4.7162E+06
Rb-88	4.8744E-04	4.0607E-15	2.7789E+10	1.8035E+07
Rb-89	5.1254E-04	3.6875E-15	2.4951E+10	1.8964E+07
Ba-137m	3.5510E-04	6.6028E-16	2.9024E+09	1.3139E+07
Br-82	1.2726E-05	1.1754E-14	8.6325E+10	4.7085E+05
Br-83	1.9156E-04	1.2126E-14	8.7980E+10	7.0878E+06
Br-84	2.0129E-04	2.8596E-15	2.0501E+10	7.4478E+06

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	2.4615E+00	3.0252E-08	2.1184E+17	9.1075E+10
Sr-89	1.3504E-01	4.6481E-09	3.1451E+16	4.9964E+09
I-131	7.8273E+02	6.3137E-06	2.9024E+19	2.8961E+13
I-132	9.6262E+02	9.3258E-08	4.2546E+17	3.5617E+13
I-133	1.5067E+03	1.3301E-06	6.0224E+18	5.5748E+13
I-134	1.1306E+03	4.2381E-08	1.9047E+17	4.1832E+13
I-135	1.3643E+03	3.8848E-07	1.7329E+18	5.0478E+13
Xe-133	4.0563E+00	2.1670E-08	9.8122E+16	1.5008E+11
Xe-135	4.7939E+01	1.8772E-08	8.3740E+16	1.7738E+12
Cs-134	2.5614E+02	1.9797E-04	8.8972E+20	9.4773E+12
Cs-136	7.3770E+01	1.0065E-06	4.4570E+18	2.7295E+12
Cs-137	1.3832E+02	1.5902E-03	6.9903E+21	5.1179E+12
I-130	3.8138E+01	1.9555E-08	9.0585E+16	1.4111E+12
Kr-83m	1.5337E+01	7.4336E-10	5.3935E+15	5.6747E+11
Xe-131m	1.0546E-02	1.2590E-10	5.7877E+14	3.9018E+08
Xe-133m	2.8984E-01	6.4595E-10	2.9248E+15	1.0724E+10
Xe-135m	1.6358E+02	1.7957E-09	8.0105E+15	6.0524E+12
Cs-138	8.8342E+02	2.0878E-08	9.1107E+16	3.2687E+13
Cs-134m	5.4899E+01	6.8076E-09	3.0594E+16	2.0313E+12
Rb-88	2.0994E+02	1.7489E-09	1.1968E+16	7.7677E+12
Rb-89	2.2075E+02	1.5882E-09	1.0746E+16	8.1677E+12
Ba-137m	1.5294E+02	2.8438E-10	1.2500E+15	5.6588E+12
Br-82	5.4809E+00	5.0626E-09	3.7180E+16	2.0279E+11
Br-83	8.2505E+01	5.2225E-09	3.7893E+16	3.0527E+12
Br-84	8.6696E+01	1.2316E-09	8.8298E+15	3.2077E+12

SGs Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.9877E+17	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.6443E+19	0.0000E+00	0.0000E+00
Organic I (atoms)	1.1271E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7893E-03	0.0000E+00	0.0000E+00

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 2.0000

EAB Doses:

Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.4395E-02	3.9240E+00	2.2095E-02	1.9271E-01
Accumulated dose (rem)	1.7298E-02	4.3839E+00	2.6825E-02	2.1653E-01

LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.7786E-03	4.8485E-01	2.7301E-03	2.3812E-02
Accumulated dose (rem)	2.1374E-03	5.4168E-01	3.3145E-03	2.6754E-02

Control Room Doses:

Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.9916E-04	1.3835E+00	1.0616E-02	6.3050E-02
Accumulated dose (rem)	6.6425E-04	3.9360E+00	3.6163E-02	1.7953E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	7.0882E+03	8.7114E-05	6.1001E+20	2.6226E+14
Sr-89	5.2033E+02	1.7910E-05	1.2119E+20	1.9252E+13
I-131	2.2471E+06	1.8125E-02	8.3324E+22	8.3143E+16
I-132	1.7680E+06	1.7128E-04	7.8142E+20	6.5416E+16
I-133	4.1368E+06	3.6518E-03	1.6535E+22	1.5306E+17
I-134	9.9674E+05	3.7364E-05	1.6792E+20	3.6879E+16
I-135	3.3646E+06	9.5808E-04	4.2738E+21	1.2449E+17
Xe-133	4.5510E+04	2.4313E-04	1.1009E+21	1.6839E+15
Xe-135	5.1499E+05	2.0166E-04	8.9959E+20	1.9055E+16
Cs-134	7.3929E+05	5.7139E-01	2.5679E+24	2.7354E+16
Cs-136	2.1222E+05	2.8956E-03	1.2822E+22	7.8523E+15
Cs-137	3.9924E+05	4.5900E+00	2.0176E+25	1.4772E+16
I-130	1.0120E+05	5.1888E-05	2.4037E+20	3.7444E+15
Kr-83m	1.0738E+05	5.2047E-06	3.7763E+19	3.9732E+15
Xe-131m	1.2121E+02	1.4471E-06	6.6525E+18	4.4849E+12
Xe-133m	3.2321E+03	7.2031E-06	3.2615E+19	1.1959E+14
Xe-135m	5.5075E+05	6.0461E-06	2.6971E+19	2.0378E+16
Cs-138	3.6739E+05	8.6824E-06	3.7889E+19	1.3593E+16

Cs-134m	1.1071E+05	1.3729E-05	6.1700E+19	4.0965E+15
Rb-88	1.8213E+04	1.5172E-07	1.0383E+18	6.7387E+14
Rb-89	1.0515E+04	7.5655E-08	5.1192E+17	3.8907E+14
Ba-137m	4.4257E+05	8.2293E-07	3.6174E+18	1.6375E+16
Br-82	1.5361E+04	1.4188E-05	1.0420E+20	5.6834E+14
Br-83	1.5413E+05	9.7566E-06	7.0790E+19	5.7029E+15
Br-84	3.5186E+04	4.9987E-07	3.5837E+18	1.3019E+15

PCS Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.1045E+21	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0234E+23	0.0000E+00	0.0000E+00
Organic I (atoms)	3.1650E+21	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1644E+00	0.0000E+00	0.0000E+00

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	4.8766E-02	5.9933E-10	4.1968E+15	1.8043E+09
Sr-89	3.5798E-03	1.2322E-10	8.3375E+14	1.3245E+08
I-131	1.5460E+01	1.2470E-07	5.7325E+17	5.7200E+11
I-132	1.2163E+01	1.1784E-09	5.3760E+15	4.5005E+11
I-133	2.8461E+01	2.5124E-08	1.1376E+17	1.0530E+12
I-134	6.8574E+00	2.5705E-10	1.1552E+15	2.5372E+11
I-135	2.3148E+01	6.5914E-09	2.9403E+16	8.5647E+11
Xe-133	3.1323E-01	1.6734E-09	7.5770E+15	1.1590E+10
Xe-135	3.5446E+00	1.3880E-09	6.1916E+15	1.3115E+11
Cs-134	5.0861E+00	3.9311E-06	1.7667E+19	1.8819E+11
Cs-136	1.4601E+00	1.9921E-08	8.8212E+16	5.4022E+10
Cs-137	2.7467E+00	3.1578E-05	1.3881E+20	1.0163E+11
I-130	6.9623E-01	3.5698E-10	1.6537E+15	2.5760E+10
Kr-83m	7.3909E-01	3.5822E-11	2.5991E+14	2.7346E+10
Xe-131m	8.3427E-04	9.9601E-12	4.5787E+13	3.0868E+07
Xe-133m	2.2245E-02	4.9576E-11	2.2448E+14	8.2307E+08
Xe-135m	3.7901E+00	4.1607E-11	1.8560E+14	1.4023E+11
Cs-138	2.5276E+00	5.9733E-11	2.6067E+14	9.3520E+10
Cs-134m	7.6170E-01	9.4452E-11	4.2448E+14	2.8183E+10
Rb-88	1.2530E-01	1.0438E-12	7.1433E+12	4.6361E+09
Rb-89	7.2344E-02	5.2049E-13	3.5219E+12	2.6767E+09
Ba-137m	3.0448E+00	5.6616E-12	2.4887E+13	1.1266E+11
Br-82	1.0568E-01	9.7612E-11	7.1687E+14	3.9101E+09
Br-83	1.0604E+00	6.7124E-11	4.8702E+14	3.9235E+10
Br-84	2.4207E-01	3.4390E-12	2.4655E+13	8.9568E+09

Environment Transport Group Inventory:

Time (h) = 2.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.7533E+14	3.8240E+12	1.4484E+16
Elemental I (atoms)	1.3381E+16	1.8584E+14	7.0405E+17
Organic I (atoms)	4.1383E+14	5.7477E+12	2.1775E+16
Aerosols (kg)	6.7525E-07	9.3785E-09	3.5530E-05

Control Room Unfiltered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	2.2214E-05	2.7301E-13	1.9118E+12	8.2193E+05
Sr-89	1.6307E-06	5.6130E-14	3.7980E+11	6.0335E+04
I-131	7.0423E-03	5.6804E-11	2.6113E+14	2.6057E+08
I-132	5.5408E-03	5.3679E-13	2.4489E+12	2.0501E+08
I-133	1.2965E-02	1.1445E-11	5.1821E+13	4.7969E+08
I-134	3.1237E-03	1.1710E-13	5.2624E+11	1.1558E+08
I-135	1.0545E-02	3.0026E-12	1.3394E+13	3.9015E+08
Cs-134	2.3169E-03	1.7907E-09	8.0477E+15	8.5725E+07
Cs-136	6.6510E-04	9.0748E-12	4.0183E+13	2.4609E+07
Cs-137	1.2512E-03	1.4385E-08	6.3231E+16	4.6295E+07
I-130	3.1715E-04	1.6261E-13	7.5330E+11	1.1735E+07
Cs-138	1.1514E-03	2.7210E-14	1.1874E+11	4.2601E+07
Cs-134m	3.4698E-04	4.3026E-14	1.9336E+11	1.2838E+07
Rb-88	5.7078E-05	4.7550E-16	3.2540E+09	2.1119E+06
Rb-89	3.2955E-05	2.3710E-16	1.6043E+09	1.2193E+06
Ba-137m	1.3870E-03	2.5790E-15	1.1337E+10	5.1319E+07
Br-82	4.8140E-05	4.4465E-14	3.2655E+11	1.7812E+06
Br-83	4.8305E-04	3.0577E-14	2.2185E+11	1.7873E+07
Br-84	1.1027E-04	1.5666E-15	1.1231E+10	4.0801E+06

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.2072E+14
Organic I (atoms)	9.9191E+12
Aerosols (kg)	1.6185E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

	Pathway Filter
Time (h) = 2.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	7.3843E-07	9.0753E-15	6.3549E+10	2.7322E+04
Sr-89	5.4206E-08	1.8658E-15	1.2625E+10	2.0056E+03
I-131	2.3410E-04	1.8883E-12	8.6804E+12	8.6616E+06
I-132	1.8418E-04	1.7844E-14	8.1406E+10	6.8148E+06

I-133	4.3096E-04	3.8044E-13	1.7226E+12	1.5946E+07
I-134	1.0384E-04	3.8924E-15	1.7493E+10	3.8420E+06
I-135	3.5052E-04	9.9810E-14	4.4524E+11	1.2969E+07
Xe-133	8.2040E-05	4.3829E-13	1.9846E+12	3.0355E+06
Xe-135	9.1159E-04	3.5697E-13	1.5924E+12	3.3729E+07
Cs-134	7.7017E-05	5.9526E-11	2.6752E+14	2.8496E+06
Cs-136	2.2109E-05	3.0166E-13	1.3358E+12	8.1803E+05
Cs-137	4.1592E-05	4.7817E-10	2.1019E+15	1.5389E+06
I-130	1.0543E-05	5.4055E-15	2.5041E+10	3.9008E+05
Kr-83m	1.9835E-04	9.6138E-15	6.9753E+10	7.3390E+06
Xe-131m	2.1973E-07	2.6233E-15	1.2060E+10	8.1302E+03
Xe-133m	5.8361E-06	1.3007E-14	5.8893E+10	2.1594E+05
Xe-135m	1.5715E-03	1.7252E-14	7.6958E+10	5.8146E+07
Cs-138	3.8274E-05	9.0451E-16	3.9471E+09	1.4161E+06
Cs-134m	1.1534E-05	1.4302E-15	6.4277E+09	4.2676E+05
Rb-88	1.8974E-06	1.5806E-17	1.0817E+08	7.0202E+04
Rb-89	1.0955E-06	7.8816E-18	5.3330E+07	4.0533E+04
Ba-137m	4.6106E-05	8.5730E-17	3.7685E+08	1.7059E+06
Br-82	1.6002E-06	1.4781E-15	1.0855E+10	5.9208E+04
Br-83	1.6057E-05	1.0164E-15	7.3747E+09	5.9411E+05
Br-84	3.6656E-06	5.2075E-17	3.7334E+08	1.3563E+05

Control Room Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.7946E+12	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0661E+13	0.0000E+00	0.0000E+00
Organic I (atoms)	3.2972E+11	0.0000E+00	0.0000E+00
Aerosols (kg)	5.3801E-10	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	1.0201E-05	1.2537E-13	8.7792E+11	3.7745E+05
Sr-89	7.4885E-07	2.5776E-14	1.7441E+11	2.7707E+04
I-131	3.2340E-03	2.6086E-11	1.1992E+14	1.1966E+08
I-132	2.5445E-03	2.4650E-13	1.1246E+12	9.4145E+07
I-133	5.9537E-03	5.2557E-12	2.3797E+13	2.2029E+08
I-134	1.4345E-03	5.3773E-14	2.4166E+11	5.3076E+07
I-135	4.8423E-03	1.3788E-12	6.1508E+12	1.7917E+08
Cs-134	1.0640E-03	8.2234E-10	3.6957E+15	3.9367E+07
Cs-136	3.0543E-04	4.1673E-12	1.8453E+13	1.1301E+07
Cs-137	5.7458E-04	6.6058E-09	2.9037E+16	2.1260E+07
I-130	1.4564E-04	7.4676E-14	3.4593E+11	5.3888E+06
Cs-138	5.2874E-04	1.2496E-14	5.4529E+10	1.9563E+07
Cs-134m	1.5934E-04	1.9758E-14	8.8797E+10	5.8955E+06
Rb-88	2.6211E-05	2.1836E-16	1.4943E+09	9.6982E+05
Rb-89	1.5134E-05	1.0888E-16	7.3674E+08	5.5995E+05
Ba-137m	6.3694E-04	1.1843E-15	5.2060E+09	2.3567E+07
Br-82	2.2107E-05	2.0419E-14	1.4996E+11	8.1795E+05
Br-83	2.2183E-04	1.4042E-14	1.0188E+11	8.2075E+06
Br-84	5.0640E-05	7.1941E-16	5.1576E+09	1.8737E+06

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	1.4728E+14
Organic I (atoms)	0.0000E+00	4.5551E+12
Aerosols (kg)	0.0000E+00	7.4325E-09

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq

Rb-86	2.2214E-05	2.7301E-13	1.9118E+12	8.2193E+05
Sr-89	1.6307E-06	5.6130E-14	3.7980E+11	6.0335E+04
I-131	7.0423E-03	5.6804E-11	2.6113E+14	2.6057E+08
I-132	5.5408E-03	5.3679E-13	2.4489E+12	2.0501E+08
I-133	1.2965E-02	1.1445E-11	5.1821E+13	4.7969E+08
I-134	3.1237E-03	1.1710E-13	5.2624E+11	1.1558E+08
I-135	1.0545E-02	3.0026E-12	1.3394E+13	3.9015E+08
Cs-134	2.3169E-03	1.7907E-09	8.0477E+15	8.5725E+07
Cs-136	6.6510E-04	9.0748E-12	4.0183E+13	2.4609E+07
Cs-137	1.2512E-03	1.4385E-08	6.3231E+16	4.6295E+07
I-130	3.1715E-04	1.6261E-13	7.5330E+11	1.1735E+07
Cs-138	1.1514E-03	2.7210E-14	1.1874E+11	4.2601E+07
Cs-134m	3.4698E-04	4.3026E-14	1.9336E+11	1.2838E+07
Rb-88	5.7078E-05	4.7550E-16	3.2540E+09	2.1119E+06
Rb-89	3.2955E-05	2.3710E-16	1.6043E+09	1.2193E+06
Ba-137m	1.3870E-03	2.5790E-15	1.1337E+10	5.1319E+07
Br-82	4.8140E-05	4.4465E-14	3.2655E+11	1.7812E+06
Br-83	4.8305E-04	3.0577E-14	2.2185E+11	1.7873E+07
Br-84	1.1027E-04	1.5666E-15	1.1231E+10	4.0801E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.2072E+14
Organic I (atoms)	9.9191E+12
Aerosols (kg)	1.6185E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	3.2415E-05	3.9838E-13	2.7897E+12	1.1994E+06
Sr-89	2.3795E-06	8.1905E-14	5.5421E+11	8.8043E+04
I-131	1.0276E-02	8.2890E-11	3.8105E+14	3.8022E+08
I-132	8.0852E-03	7.8329E-13	3.5736E+12	2.9915E+08
I-133	1.8918E-02	1.6700E-11	7.5618E+13	6.9998E+08
I-134	4.5582E-03	1.7087E-13	7.6791E+11	1.6865E+08
I-135	1.5387E-02	4.3814E-12	1.9545E+13	5.6932E+08
Cs-134	3.3809E-03	2.6131E-09	1.1743E+16	1.2509E+08
Cs-136	9.7053E-04	1.3242E-11	5.8637E+13	3.5909E+07
Cs-137	1.8258E-03	2.0991E-08	9.2269E+16	6.7555E+07
I-130	4.6280E-04	2.3729E-13	1.0992E+12	1.7123E+07
Cs-138	1.6801E-03	3.9706E-14	1.7327E+11	6.2165E+07
Cs-134m	5.0631E-04	6.2784E-14	2.8216E+11	1.8734E+07
Rb-88	8.3289E-05	6.9386E-16	4.7483E+09	3.0817E+06
Rb-89	4.8089E-05	3.4598E-16	2.3411E+09	1.7793E+06
Ba-137m	2.0239E-03	3.7634E-15	1.6543E+10	7.4886E+07
Br-82	7.0246E-05	6.4884E-14	4.7652E+11	2.5991E+06
Br-83	7.0487E-04	4.4618E-14	3.2373E+11	2.6080E+07
Br-84	1.6091E-04	2.2860E-15	1.6389E+10	5.9538E+06

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq

Rb-86	9.7902E+00	1.2032E-07	8.4254E+17	3.6224E+11
Sr-89	7.1867E-01	2.4737E-08	1.6738E+17	2.6591E+10
I-131	3.1037E+03	2.5035E-05	1.1509E+20	1.1484E+14
I-132	2.4419E+03	2.3657E-07	1.0793E+18	9.0351E+13
I-133	5.7137E+03	5.0439E-06	2.2838E+19	2.1141E+14
I-134	1.3767E+03	5.1606E-08	2.3192E+17	5.0937E+13
I-135	4.6472E+03	1.3233E-06	5.9030E+18	1.7195E+14
Xe-133	6.2858E+01	3.3581E-07	1.5205E+18	2.3257E+12
Xe-135	7.1130E+02	2.7854E-07	1.2425E+18	2.6318E+13
Cs-134	1.0211E+03	7.8920E-04	3.5468E+21	3.7780E+13
Cs-136	2.9312E+02	3.9994E-06	1.7709E+19	1.0845E+13
Cs-137	5.5143E+02	6.3396E-03	2.7867E+22	2.0403E+13
I-130	1.3977E+02	7.1667E-08	3.3199E+17	5.1717E+12
Kr-83m	1.4832E+02	7.1887E-09	5.2158E+16	5.4878E+12
Xe-131m	1.6742E-01	1.9987E-09	9.1883E+15	6.1944E+09
Xe-133m	4.4641E+00	9.9488E-09	4.5047E+16	1.6517E+11
Xe-135m	7.6069E+02	8.3508E-09	3.7252E+16	2.8146E+13
Cs-138	5.0743E+02	1.1992E-08	5.2331E+16	1.8775E+13
Cs-134m	1.5292E+02	1.8962E-08	8.5219E+16	5.6580E+12
Rb-88	2.5155E+01	2.0956E-10	1.4341E+15	9.3074E+11
Rb-89	1.4524E+01	1.0449E-10	7.0705E+14	5.3738E+11
Ba-137m	6.1127E+02	1.1366E-09	4.9962E+15	2.2617E+13
Br-82	2.1216E+01	1.9596E-08	1.4392E+17	7.8499E+11
Br-83	2.1289E+02	1.3476E-08	9.7774E+16	7.8768E+12
Br-84	4.8599E+01	6.9041E-10	4.9497E+15	1.7982E+12

SGs Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.9067E+18	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.4134E+20	0.0000E+00	0.0000E+00
Organic I (atoms)	4.3715E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	7.1330E-03	0.0000E+00	0.0000E+00

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 8.0000

EAB Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.0804E-01	5.8660E+01	1.6657E-01	2.8044E+00
Accumulated dose (rem)	1.2533E-01	6.3044E+01	1.9339E-01	3.0209E+00

LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	6.0733E-03	3.2976E+00	9.3636E-03	1.5765E-01
Accumulated dose (rem)	8.2107E-03	3.8393E+00	1.2678E-02	1.8440E-01

Control Room Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	6.2062E-04	5.3023E+00	3.6005E-02	2.4436E-01
Accumulated dose (rem)	1.2849E-03	9.2384E+00	7.2167E-02	4.2389E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	6.9935E+03	8.5950E-05	6.0187E+20	2.5876E+14
Sr-89	5.1857E+02	1.7850E-05	1.2078E+20	1.9187E+13
I-131	2.1901E+06	1.7665E-02	8.1208E+22	8.1032E+16
I-132	2.8865E+05	2.7964E-05	1.2758E+20	1.0680E+16
I-133	3.3731E+06	2.9776E-03	1.3482E+22	1.2480E+17
I-134	8.6396E+03	3.2386E-07	1.4555E+18	3.1966E+14
I-135	1.7860E+06	5.0856E-04	2.2686E+21	6.6082E+16
Xe-133	1.6186E+05	8.6472E-04	3.9154E+21	5.9888E+15
Xe-135	1.2223E+06	4.7864E-04	2.1351E+21	4.5225E+16
Cs-134	7.3606E+05	5.6890E-01	2.5567E+24	2.7234E+16
Cs-136	2.0856E+05	2.8457E-03	1.2601E+22	7.7169E+15
Cs-137	3.9758E+05	4.5708E+00	2.0092E+25	1.4710E+16
I-130	7.1984E+04	3.6909E-05	1.7098E+20	2.6634E+15
Kr-83m	5.8665E+04	2.8434E-06	2.0630E+19	2.1706E+15
Xe-131m	4.7421E+02	5.6614E-06	2.6026E+19	1.7546E+13
Xe-133m	1.1209E+04	2.4981E-05	1.1311E+20	4.1473E+14
Xe-135m	2.9393E+05	3.2267E-06	1.4394E+19	1.0875E+16
Cs-138	1.5768E+02	3.7263E-09	1.6261E+16	5.8340E+12
Cs-134m	2.6277E+04	3.2584E-06	1.4644E+19	9.7225E+14
Rb-88	1.4802E-02	1.2331E-13	8.4386E+11	5.4767E+08
Rb-89	7.7690E-04	5.5895E-15	3.7821E+10	2.8745E+07
Ba-137m	4.4073E+05	8.1950E-07	3.6023E+18	1.6307E+16
Br-82	1.3597E+04	1.2559E-05	9.2234E+19	5.0308E+14
Br-83	2.6938E+04	1.7052E-06	1.2372E+19	9.9670E+14
Br-84	1.3699E+01	1.9461E-10	1.3952E+15	5.0685E+11

PCS Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.2247E+21	0.0000E+00	0.0000E+00
Elemental I (atoms)	9.4443E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	2.9209E+21	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1427E+00	0.0000E+00	0.0000E+00

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	7.3384E-01	9.0189E-09	6.3154E+16	2.7152E+10
Sr-89	5.4415E-02	1.8730E-09	1.2674E+16	2.0133E+09
I-131	2.2980E+02	1.8536E-06	8.5213E+18	8.5028E+12
I-132	3.0289E+01	2.9343E-09	1.3387E+16	1.1207E+12
I-133	3.5394E+02	3.1245E-07	1.4147E+18	1.3096E+13
I-134	9.0656E-01	3.3983E-11	1.5273E+14	3.3543E+10
I-135	1.8741E+02	5.3364E-08	2.3805E+17	6.9340E+12
Xe-133	1.6991E+01	9.0773E-08	4.1101E+17	6.2867E+11
Xe-135	1.2831E+02	5.0244E-08	2.2413E+17	4.7475E+12

Cs-134	7.7235E+01	5.9695E-05	2.6828E+20	2.8577E+12
Cs-136	2.1885E+01	2.9860E-07	1.3222E+18	8.0974E+11
Cs-137	4.1718E+01	4.7962E-04	2.1083E+21	1.5436E+12
I-130	7.5534E+00	3.8729E-09	1.7941E+16	2.7948E+11
Kr-83m	6.1582E+00	2.9848E-10	2.1656E+15	2.2785E+11
Xe-131m	4.9779E-02	5.9430E-10	2.7320E+15	1.8418E+09
Xe-133m	1.1766E+00	2.6223E-09	1.1874E+16	4.3536E+10
Xe-135m	3.0848E+01	3.3865E-10	1.5107E+15	1.1414E+12
Cs-138	1.6545E-02	3.9101E-13	1.7063E+12	6.1217E+08
Cs-134m	2.7573E+00	3.4191E-10	1.5366E+15	1.0202E+11
Rb-88	1.5532E-06	1.2939E-17	8.8547E+07	5.7468E+04
Ba-137m	4.6246E+01	8.5991E-11	3.7799E+14	1.7111E+12
Br-82	1.4267E+00	1.3178E-09	9.6782E+15	5.2789E+10
Br-83	2.8266E+00	1.7893E-10	1.2982E+15	1.0459E+11
Br-84	1.4374E-03	2.0421E-14	1.4640E+11	5.3185E+07

Environment Transport Group Inventory:

Time (h) = 8.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	3.2311E+15	4.4877E+13	6.5343E+17
Elemental I (atoms)	4.8994E+16	6.8047E+14	9.9100E+18
Organic I (atoms)	1.5153E+15	2.1046E+13	3.0650E+17
Aerosols (kg)	2.6679E-06	3.7054E-08	5.3963E-04

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	3.1282E-04	3.8446E-12	2.6921E+13	1.1574E+07
Sr-89	2.3196E-05	7.9842E-13	5.4025E+12	8.5825E+05
I-131	9.7961E-02	7.9017E-10	3.6325E+15	3.6246E+09
I-132	1.2911E-02	1.2509E-12	5.7067E+12	4.7772E+08
I-133	1.5088E-01	1.3319E-10	6.0307E+14	5.5825E+09
I-134	3.8645E-04	1.4486E-14	6.5104E+10	1.4299E+07
I-135	7.9888E-02	2.2748E-11	1.0148E+14	2.9558E+09
Cs-134	3.2924E-02	2.5447E-08	1.1436E+17	1.2182E+09
Cs-136	9.3291E-03	1.2729E-10	5.6364E+14	3.4518E+08
Cs-137	1.7784E-02	2.0445E-07	8.9872E+17	6.5800E+08
I-130	3.2199E-03	1.6509E-12	7.6478E+12	1.1913E+08
Cs-138	7.0529E-06	1.6668E-16	7.2736E+08	2.6096E+05
Cs-134m	1.1754E-03	1.4575E-13	6.5502E+11	4.3489E+07
Ba-137m	1.9714E-02	3.6656E-14	1.6113E+11	7.2941E+08
Br-82	6.0818E-04	5.6176E-13	4.1256E+12	2.2503E+07
Br-83	1.2049E-03	7.6272E-14	5.5340E+11	4.4583E+07
Br-84	6.1274E-07	8.7049E-18	6.2407E+07	2.2672E+04

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.2244E+15
Organic I (atoms)	1.3065E+14
Aerosols (kg)	2.3003E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	2.5346E-06	3.1150E-14	2.1812E+11	9.3779E+04
Sr-89	1.8794E-07	6.4690E-15	4.3772E+10	6.9538E+03
I-131	7.9371E-04	6.4022E-12	2.9431E+13	2.9367E+07
I-132	1.0461E-04	1.0135E-14	4.6237E+10	3.8706E+06
I-133	1.2225E-03	1.0791E-12	4.8862E+12	4.5231E+07
I-134	3.1311E-06	1.1737E-16	5.2749E+08	1.1585E+05
I-135	6.4727E-04	1.8431E-13	8.2218E+11	2.3949E+07
Xe-133	1.1404E-03	6.0924E-12	2.7586E+13	4.2194E+07
Xe-135	8.4313E-03	3.3016E-12	1.4728E+13	3.1196E+08
Cs-134	2.6676E-04	2.0618E-10	9.2659E+14	9.8701E+06
Cs-136	7.5587E-05	1.0313E-12	4.5668E+12	2.7967E+06
Cs-137	1.4409E-04	1.6565E-09	7.2817E+15	5.3313E+06
I-130	2.6088E-05	1.3376E-14	6.1964E+10	9.6526E+05
Kr-83m	4.7056E-04	2.2807E-14	1.6548E+11	1.7411E+07
Xe-131m	3.4384E-06	4.1050E-14	1.8871E+11	1.2722E+05
Xe-133m	7.9646E-05	1.7750E-13	8.0371E+11	2.9469E+06
Xe-135m	8.1974E-03	8.9990E-14	4.0143E+11	3.0330E+08
Cs-138	5.7144E-08	1.3505E-18	5.8933E+06	2.1143E+03
Cs-134m	9.5232E-06	1.1809E-15	5.3071E+09	3.5236E+05
Ba-137m	1.5973E-04	2.9700E-16	1.3055E+09	5.9099E+06
Br-82	4.9277E-06	4.5515E-15	3.3427E+10	1.8232E+05
Br-83	9.7627E-06	6.1798E-16	4.4838E+09	3.6122E+05
Br-84	4.9646E-09	7.0529E-20	5.0564E+05	1.8369E+02

Control Room Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	4.3873E+13	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.4228E+13	0.0000E+00	0.0000E+00
Organic I (atoms)	1.0586E+12	0.0000E+00	0.0000E+00
Aerosols (kg)	1.8638E-09	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	3.2171E-05	3.9537E-13	2.7686E+12	1.1903E+06
Sr-89	2.3855E-06	8.2110E-14	5.5559E+11	8.8262E+04
I-131	1.0074E-02	8.1261E-11	3.7356E+14	3.7275E+08
I-132	1.3278E-03	1.2864E-13	5.8687E+11	4.9129E+07
I-133	1.5516E-02	1.3697E-11	6.2020E+13	5.7410E+08
I-134	3.9742E-05	1.4898E-15	6.6953E+09	1.4705E+06
I-135	8.2157E-03	2.3394E-12	1.0436E+13	3.0398E+08
Cs-134	3.3859E-03	2.6170E-09	1.1761E+16	1.2528E+08
Cs-136	9.5941E-04	1.3090E-11	5.7965E+13	3.5498E+07
Cs-137	1.8289E-03	2.1026E-08	9.2425E+16	6.7669E+07
I-130	3.3113E-04	1.6978E-13	7.8650E+11	1.2252E+07
Cs-138	7.2532E-07	1.7141E-17	7.4802E+07	2.6837E+04
Cs-134m	1.2088E-04	1.4989E-14	6.7362E+10	4.4724E+06
Ba-137m	2.0274E-03	3.7697E-15	1.6571E+10	7.5012E+07
Br-82	6.2546E-05	5.7772E-14	4.2428E+11	2.3142E+06
Br-83	1.2392E-04	7.8439E-15	5.6912E+10	4.5849E+06

Br-84	6.3015E-08	8.9521E-19	6.4180E+06	2.3315E+03

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	4.3444E+14
Organic I (atoms)	0.0000E+00	1.3436E+13
Aerosols (kg)	0.0000E+00	2.3657E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	3.1282E-04	3.8446E-12	2.6921E+13	1.1574E+07
Sr-89	2.3196E-05	7.9842E-13	5.4025E+12	8.5825E+05
I-131	9.7961E-02	7.9017E-10	3.6325E+15	3.6246E+09
I-132	1.2911E-02	1.2509E-12	5.7067E+12	4.7772E+08
I-133	1.5088E-01	1.3319E-10	6.0307E+14	5.5825E+09
I-134	3.8645E-04	1.4486E-14	6.5104E+10	1.4299E+07
I-135	7.9888E-02	2.2748E-11	1.0148E+14	2.9558E+09
Cs-134	3.2924E-02	2.5447E-08	1.1436E+17	1.2182E+09
Cs-136	9.3291E-03	1.2729E-10	5.6364E+14	3.4518E+08
Cs-137	1.7784E-02	2.0445E-07	8.9872E+17	6.5800E+08
I-130	3.2199E-03	1.6509E-12	7.6478E+12	1.1913E+08
Cs-138	7.0529E-06	1.6668E-16	7.2736E+08	2.6096E+05
Cs-134m	1.1754E-03	1.4575E-13	6.5502E+11	4.3489E+07
Ba-137m	1.9714E-02	3.6656E-14	1.6113E+11	7.2941E+08
Br-82	6.0818E-04	5.6176E-13	4.1256E+12	2.2503E+07
Br-83	1.2049E-03	7.6272E-14	5.5340E+11	4.4583E+07
Br-84	6.1274E-07	8.7049E-18	6.2407E+07	2.2672E+04

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.2244E+15
Organic I (atoms)	1.3065E+14
Aerosols (kg)	2.3003E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	3.4499E-04	4.2399E-12	2.9690E+13	1.2765E+07
Sr-89	2.5581E-05	8.8053E-13	5.9581E+12	9.4651E+05
I-131	1.0804E-01	8.7143E-10	4.0060E+15	3.9973E+09
I-132	1.4239E-02	1.3795E-12	6.2935E+12	5.2685E+08

I-133	1.6639E-01	1.4689E-10	6.6509E+14	6.1566E+09
I-134	4.2619E-04	1.5976E-14	7.1799E+10	1.5769E+07
I-135	8.8103E-02	2.5087E-11	1.1191E+14	3.2598E+09
Cs-134	3.6310E-02	2.8064E-08	1.2612E+17	1.3435E+09
Cs-136	1.0289E-02	1.4038E-10	6.2160E+14	3.8067E+08
Cs-137	1.9613E-02	2.2548E-07	9.9115E+17	7.2567E+08
I-130	3.5510E-03	1.8207E-12	8.4343E+12	1.3139E+08
Cs-138	7.7782E-06	1.8382E-16	8.0216E+08	2.8779E+05
Cs-134m	1.2963E-03	1.6074E-13	7.2238E+11	4.7961E+07
Ba-137m	2.1741E-02	4.0426E-14	1.7770E+11	8.0442E+08
Br-82	6.7073E-04	6.1953E-13	4.5499E+12	2.4817E+07
Br-83	1.3289E-03	8.4116E-14	6.1031E+11	4.9167E+07
Br-84	6.7576E-07	9.6001E-18	6.8825E+07	2.5003E+04

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	3.8178E+01	4.6920E-07	3.2856E+18	1.4126E+12
Sr-89	2.8309E+00	9.7441E-08	6.5933E+17	1.0474E+11
I-131	1.1955E+04	9.6434E-05	4.4331E+20	4.4235E+14
I-132	1.5757E+03	1.5266E-07	6.9646E+17	5.8303E+13
I-133	1.8414E+04	1.6255E-05	7.3600E+19	6.8130E+14
I-134	4.7163E+01	1.7680E-09	7.9454E+15	1.7450E+12
I-135	9.7497E+03	2.7762E-06	1.2384E+19	3.6074E+14
Xe-133	8.8359E+02	4.7205E-06	2.1374E+19	3.2693E+13
Xe-135	6.6725E+03	2.6129E-06	1.1656E+19	2.4688E+14
Cs-134	4.0181E+03	3.1056E-03	1.3957E+22	1.4867E+14
Cs-136	1.1385E+03	1.5535E-05	6.8788E+19	4.2126E+13
Cs-137	2.1704E+03	2.4952E-02	1.0968E+23	8.0304E+13
I-130	3.9296E+02	2.0148E-07	9.3335E+17	1.4540E+13
Kr-83m	3.2025E+02	1.5522E-08	1.1262E+17	1.1849E+13
Xe-131m	2.5887E+00	3.0906E-08	1.4207E+17	9.5781E+10
Xe-133m	6.1189E+01	1.3637E-07	6.1747E+17	2.2640E+12
Xe-135m	1.6045E+03	1.7614E-08	7.8575E+16	5.9368E+13
Cs-138	8.6075E-01	2.0342E-11	8.8769E+13	3.1848E+10
Cs-134m	1.4345E+02	1.7788E-08	7.9940E+16	5.3075E+12
Rb-88	8.0804E-05	6.7315E-16	4.6066E+09	2.9897E+06
Rb-89	4.2411E-06	3.0513E-17	2.0646E+08	1.5692E+05
Ba-137m	2.4059E+03	4.4736E-09	1.9665E+16	8.9019E+13
Br-82	7.4224E+01	6.8559E-08	5.0350E+17	2.7463E+12
Br-83	1.4705E+02	9.3085E-09	6.7539E+16	5.4410E+12
Br-84	7.4781E-02	1.0624E-12	7.6163E+12	2.7669E+09

SGs Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.3980E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	5.1556E+20	0.0000E+00	0.0000E+00
Organic I (atoms)	1.5945E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	2.8074E-02	0.0000E+00	0.0000E+00

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00

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Elemental I (atoms)     0.0000E+00
Organic I (atoms)       0.0000E+00
Aerosols (kg)           0.0000E+00

Detailed model information at time (H) =   24.0000

EAB Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        7.2189E-06  5.4468E-05  1.2115E-05  9.7433E-06
Accumulated dose (rem)  1.2534E-01  6.3044E+01  1.9340E-01  3.0209E+00

LPZ Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.7322E-07  2.0615E-06  4.5854E-07  3.6876E-07
Accumulated dose (rem)  8.2110E-03  3.8393E+00  1.2679E-02  1.8440E-01

Control Room Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        5.8896E-04  2.9268E-01  3.3462E-02  1.4153E-02
Accumulated dose (rem)  1.8738E-03  9.5310E+00  1.0563E-01  4.3805E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) =  24.0000       Ci           kg         Atoms         Bq
Rb-86                  6.8225E+03  8.3848E-05  5.8714E+20  2.5243E+14
Sr-89                  5.1385E+02  1.7687E-05  1.1968E+20  1.9012E+13
I-131                  2.0677E+06  1.6679E-02  7.6673E+22  7.6506E+16
I-132                  2.3241E+03  2.2516E-07  1.0272E+18  8.5992E+13
I-133                  1.9791E+06  1.7471E-03  7.9106E+21  7.3226E+16
I-134                  2.7696E-02  1.0382E-12  4.6658E+12  1.0247E+09
I-135                  3.3359E+05  9.4990E-05  4.2374E+20  1.2343E+16
Xe-133                 3.6302E+05  1.9394E-03  8.7815E+21  1.3432E+16
Xe-135                 8.8067E+05  3.4486E-04  1.5383E+21  3.2585E+16
Cs-134                 7.3561E+05  5.6855E-01  2.5552E+24  2.7218E+16
Cs-136                 2.0134E+05  2.7471E-03  1.2164E+22  7.4494E+15
Cs-137                 3.9756E+05  4.5706E+00  2.0091E+25  1.4710E+16
I-130                  2.9346E+04  1.5047E-05  6.9703E+19  1.0858E+15
Kr-83m                 9.8177E+02  4.7585E-08  3.4526E+17  3.6326E+13
Xe-131m                1.3558E+03  1.6186E-05  7.4409E+19  5.0164E+13
Xe-133m                2.3377E+04  5.2099E-05  2.3590E+20  8.6495E+14
Xe-135m                5.4900E+04  6.0269E-07  2.6885E+18  2.0313E+15
Cs-138                 1.6709E-07  3.9489E-18  1.7232E+07  6.1825E+03
Cs-134m                5.7375E+02  7.1147E-08  3.1974E+17  2.1229E+13
Ba-137m                4.4071E+05  8.1946E-07  3.6021E+18  1.6306E+16
Br-82                  9.9310E+03  9.1729E-06  6.7367E+19  3.6745E+14
Br-83                  2.6008E+02  1.6463E-08  1.1945E+17  9.6228E+12
Br-84                  1.1194E-08  1.5903E-19  1.1401E+06  4.1418E+02

PCS Transport Group Inventory:

                                                Overlying
Time (h) =  24.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    1.0633E+22  0.0000E+00  0.0000E+00
Elemental I (atoms)    8.2591E+22  0.0000E+00  0.0000E+00
Organic I (atoms)      2.5544E+21  0.0000E+00  0.0000E+00
Aerosols (kg)          5.1420E+00  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =  24.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
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Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Xe-133	3.8110E+01	2.0360E-07	9.2188E+17	1.4101E+12
Xe-135	9.2453E+01	3.6203E-08	1.6150E+17	3.4207E+12
Kr-83m	1.0307E-01	4.9954E-12	3.6244E+13	3.8134E+09
Xe-131m	1.4233E-01	1.6992E-09	7.8115E+15	5.2662E+09
Xe-133m	2.4541E+00	5.4694E-09	2.4765E+16	9.0803E+10
Xe-135m	5.7620E+00	6.3255E-11	2.8217E+14	2.1319E+11

Environment Transport Group Inventory:

Time (h) = 24.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	3.1207E+11	4.3343E+09	1.1163E+18
Elemental I (atoms)	2.5672E-21	3.5656E-23	8.6663E+18
Organic I (atoms)	7.9399E-23	1.1028E-24	2.6803E+17
Aerosols (kg)	1.5975E-43	2.2187E-45	5.3956E-04

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	3.0517E-04	3.7505E-12	2.6263E+13	1.1291E+07
Sr-89	2.2985E-05	7.9115E-13	5.3533E+12	8.5043E+05
I-131	9.2490E-02	7.4604E-10	3.4296E+15	3.4221E+09
I-132	1.0396E-04	1.0071E-14	4.5947E+10	3.8464E+06
I-133	8.8525E-02	7.8146E-11	3.5384E+14	3.2754E+09
I-134	1.2388E-09	4.6438E-20	2.0870E+05	4.5836E+01
I-135	1.4922E-02	4.2489E-12	1.8954E+13	5.5210E+08
Cs-134	3.2904E-02	2.5431E-08	1.1429E+17	1.2174E+09
Cs-136	9.0058E-03	1.2288E-10	5.4410E+14	3.3321E+08
Cs-137	1.7783E-02	2.0444E-07	8.9868E+17	6.5797E+08
I-130	1.3127E-03	6.7305E-13	3.1178E+12	4.8569E+07
Cs-134m	2.5664E-05	3.1824E-15	1.4302E+10	9.4956E+05
Ba-137m	1.9713E-02	3.6655E-14	1.6112E+11	7.2938E+08
Br-82	4.4421E-04	4.1031E-13	3.0133E+12	1.6436E+07
Br-83	1.1633E-05	7.3638E-16	5.3429E+09	4.3043E+05

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.6943E+15
Organic I (atoms)	1.1426E+14
Aerosols (kg)	2.3000E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00

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Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) =  24.0000       Ci           kg         Atoms         Bq
Xe-133                 2.2833E-04  1.2199E-12  5.5234E+12  8.4484E+06
Xe-135                 5.0982E-04  1.9964E-13  8.9056E+11  1.8863E+07
Kr-83m                 2.0324E-06  9.8508E-17  7.1473E+08  7.5200E+04
Xe-131m                1.1883E-06  1.4187E-14  6.5216E+10  4.3966E+04
Xe-133m                1.6293E-05  3.6310E-14  1.6441E+11  6.0283E+05
Xe-135m                1.4575E-03  1.6000E-14  7.1374E+10  5.3927E+07

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =  24.0000    Atmosphere     Sump        Pool
Noble gases (atoms)    6.7157E+12  0.0000E+00  0.0000E+00
Elemental I (atoms)    5.1479E-20  0.0000E+00  0.0000E+00
Organic I (atoms)      1.5921E-21  0.0000E+00  0.0000E+00
Aerosols (kg)          3.2048E-42  0.0000E+00  0.0000E+00

                       Recirculating Filter Inventory

Time (h) =  24.0000       Ci           kg         Atoms         Bq
Rb-86                  3.2610E-05  4.0078E-13  2.8064E+12  1.2066E+06
Sr-89                  2.4561E-06  8.4542E-14  5.7205E+11  9.0877E+04
I-131                  9.8834E-03  7.9721E-11  3.6648E+14  3.6569E+08
I-132                  1.1109E-05  1.0762E-15  4.9099E+09  4.1103E+05
I-133                  9.4597E-03  8.3507E-12  3.7811E+13  3.5001E+08
I-135                  1.5945E-03  4.5404E-13  2.0254E+12  5.8997E+07
Cs-134                 3.5161E-03  2.7176E-09  1.2213E+16  1.3010E+08
Cs-136                 9.6235E-04  1.3131E-11  5.8143E+13  3.5607E+07
Cs-137                 1.9003E-03  2.1847E-08  9.6033E+16  7.0311E+07
I-130                  1.4027E-04  7.1921E-14  3.3317E+11  5.1900E+06
Cs-134m                2.7424E-06  3.4007E-16  1.5283E+09  1.0147E+05
Ba-137m                2.1065E-03  3.9169E-15  1.7218E+10  7.7941E+07
Br-82                  4.7468E-05  4.3845E-14  3.2200E+11  1.7563E+06
Br-83                  1.2431E-06  7.8690E-17  5.7094E+08  4.5996E+04

                       Deposition Recirculating
Time (h) =  24.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  3.9477E+14
Organic I (atoms)      0.0000E+00  1.2209E+13
Aerosols (kg)          0.0000E+00  2.4578E-08

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =  24.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) =  24.0000       Ci           kg         Atoms         Bq
Rb-86                  3.0517E-04  3.7505E-12  2.6263E+13  1.1291E+07
Sr-89                  2.2985E-05  7.9115E-13  5.3533E+12  8.5043E+05
I-131                  9.2490E-02  7.4604E-10  3.4296E+15  3.4221E+09
I-132                  1.0396E-04  1.0071E-14  4.5947E+10  3.8464E+06
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I-133	8.8525E-02	7.8146E-11	3.5384E+14	3.2754E+09
I-134	1.2388E-09	4.6438E-20	2.0870E+05	4.5836E+01
I-135	1.4922E-02	4.2489E-12	1.8954E+13	5.5210E+08
Cs-134	3.2904E-02	2.5431E-08	1.1429E+17	1.2174E+09
Cs-136	9.0058E-03	1.2288E-10	5.4410E+14	3.3321E+08
Cs-137	1.7783E-02	2.0444E-07	8.9868E+17	6.5797E+08
I-130	1.3127E-03	6.7305E-13	3.1178E+12	4.8569E+07
Cs-134m	2.5664E-05	3.1824E-15	1.4302E+10	9.4956E+05
Ba-137m	1.9713E-02	3.6655E-14	1.6112E+11	7.2938E+08
Br-82	4.4421E-04	4.1031E-13	3.0133E+12	1.6436E+07
Br-83	1.1633E-05	7.3638E-16	5.3429E+09	4.3043E+05

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.6943E+15
Organic I (atoms)	1.1426E+14
Aerosols (kg)	2.3000E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	3.3778E-04	4.1513E-12	2.9069E+13	1.2498E+07
Sr-89	2.5441E-05	8.7569E-13	5.9253E+12	9.4131E+05
I-131	1.0237E-01	8.2576E-10	3.7960E+15	3.7878E+09
I-132	1.1507E-04	1.1147E-14	5.0857E+10	4.2574E+06
I-133	9.7984E-02	8.6497E-11	3.9165E+14	3.6254E+09
I-134	1.3712E-09	5.1401E-20	2.3100E+05	5.0734E+01
I-135	1.6516E-02	4.7029E-12	2.0979E+13	6.1109E+08
Cs-134	3.6420E-02	2.8149E-08	1.2651E+17	1.3475E+09
Cs-136	9.9681E-03	1.3601E-10	6.0225E+14	3.6882E+08
Cs-137	1.9683E-02	2.2629E-07	9.9472E+17	7.2828E+08
I-130	1.4529E-03	7.4497E-13	3.4510E+12	5.3759E+07
Cs-134m	2.8406E-05	3.5225E-15	1.5830E+10	1.0510E+06
Ba-137m	2.1819E-02	4.0572E-14	1.7834E+11	8.0732E+08
Br-82	4.9168E-04	4.5415E-13	3.3353E+12	1.8192E+07
Br-83	1.2876E-05	8.1507E-16	5.9138E+09	4.7642E+05

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	3.7244E+01	4.5772E-07	3.2052E+18	1.3780E+12
Sr-89	2.8051E+00	9.6554E-08	6.5333E+17	1.0379E+11
I-131	1.1288E+04	9.1048E-05	4.1855E+20	4.1764E+14
I-132	1.2687E+01	1.2291E-09	5.6075E+15	4.6943E+11
I-133	1.0804E+04	9.5372E-06	4.3184E+19	3.9974E+14
I-134	1.5119E-04	5.6675E-15	2.5470E+10	5.5940E+06
I-135	1.8211E+03	5.1855E-07	2.3132E+18	6.7379E+13
Xe-133	1.9817E+03	1.0587E-05	4.7938E+19	7.3324E+13
Xe-135	4.8075E+03	1.8826E-06	8.3978E+18	1.7788E+14
Cs-134	4.0157E+03	3.1037E-03	1.3949E+22	1.4858E+14
Cs-136	1.0991E+03	1.4996E-05	6.6404E+19	4.0666E+13
Cs-137	2.1703E+03	2.4951E-02	1.0968E+23	8.0301E+13

I-130	1.6020E+02	8.2140E-08	3.8051E+17	5.9274E+12
Kr-83m	5.3595E+00	2.5976E-10	1.8847E+15	1.9830E+11
Xe-131m	7.4012E+00	8.8361E-08	4.0620E+17	2.7384E+11
Xe-133m	1.2761E+02	2.8441E-07	1.2878E+18	4.7218E+12
Xe-135m	2.9970E+02	3.2901E-09	1.4676E+16	1.1089E+13
Cs-134m	3.1321E+00	3.8839E-10	1.7455E+15	1.1589E+11
Ba-137m	2.4058E+03	4.4734E-09	1.9664E+16	8.9015E+13
Br-82	5.4213E+01	5.0075E-08	3.6775E+17	2.0059E+12
Br-83	1.4197E+00	8.9870E-11	6.5206E+14	5.2531E+10

SGs Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.8046E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.5086E+20	0.0000E+00	0.0000E+00
Organic I (atoms)	1.3944E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	2.8070E-02	0.0000E+00	0.0000E+00

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 96.0000

EAB Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.6298E-06	1.0292E-37	2.7820E-06	1.6298E-06
Accumulated dose (rem)	1.2534E-01	6.3044E+01	1.9341E-01	3.0209E+00

LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.6216E-08	1.6556E-39	4.4749E-08	2.6216E-08
Accumulated dose (rem)	8.2110E-03	3.8393E+00	1.2679E-02	1.8440E-01

Control Room Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	7.9779E-05	2.5969E-34	4.6102E-03	7.9779E-05
Accumulated dose (rem)	1.9536E-03	9.5310E+00	1.1024E-01	4.3813E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	6.1030E+03	7.5006E-05	5.2523E+20	2.2581E+14
Sr-89	4.9312E+02	1.6974E-05	1.1485E+20	1.8246E+13
I-131	1.5965E+06	1.2878E-02	5.9199E+22	5.9071E+16
I-132	8.7641E-07	8.4906E-17	3.8736E+08	3.2427E+04
I-133	1.7965E+05	1.5859E-04	7.1809E+20	6.6472E+15
I-135	1.7548E+02	4.9967E-08	2.2289E+17	6.4926E+12

Xe-133	4.7373E+05	2.5309E-03	1.1460E+22	1.7528E+16
Xe-135	6.8585E+03	2.6857E-06	1.1980E+19	2.5376E+14
Cs-134	7.3358E+05	5.6699E-01	2.5481E+24	2.7143E+16
Cs-136	1.7178E+05	2.3439E-03	1.0379E+22	6.3560E+15
Cs-137	3.9749E+05	4.5698E+00	2.0087E+25	1.4707E+16
I-130	5.1759E+02	2.6538E-07	1.2294E+18	1.9151E+13
Kr-83m	9.5101E-07	4.6094E-17	3.3444E+08	3.5187E+04
Xe-131m	4.3687E+03	5.2157E-05	2.3977E+20	1.6164E+14
Xe-133m	2.0175E+04	4.4962E-05	2.0358E+20	7.4647E+14
Xe-135m	2.8879E+01	3.1703E-10	1.4142E+15	1.0685E+12
Cs-134m	1.9270E-05	2.3895E-15	1.0739E+10	7.1298E+05
Ba-137m	4.4062E+05	8.1931E-07	3.6014E+18	1.6303E+16
Br-82	2.4154E+03	2.2311E-06	1.6385E+19	8.9371E+13
Br-83	2.2203E-07	1.4055E-17	1.0197E+08	8.2152E+03

PCS Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.1915E+22	0.0000E+00	0.0000E+00
Elemental I (atoms)	5.8137E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	1.7981E+21	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1392E+00	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Xe-133	4.9732E+01	2.6569E-07	1.2030E+18	1.8401E+12
Xe-135	7.2001E-01	2.8195E-10	1.2577E+15	2.6640E+10
Xe-131m	4.5863E-01	5.4755E-09	2.5171E+16	1.6969E+10
Xe-133m	2.1180E+00	4.7202E-09	2.1372E+16	7.8364E+10
Xe-135m	3.0309E-03	3.3273E-14	1.4843E+11	1.1214E+08

Environment Transport Group Inventory:

Time (h) = 96.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.6354E+10	3.6603E+08	1.2508E+18
Elemental I (atoms)	0.0000E+00	0.0000E+00	6.1004E+18
Organic I (atoms)	0.0000E+00	0.0000E+00	1.8867E+17
Aerosols (kg)	0.0000E+00	0.0000E+00	5.3926E-04

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.7299E-04	3.3550E-12	2.3493E+13	1.0101E+07
Sr-89	2.2057E-05	7.5923E-13	5.1373E+12	8.1612E+05
I-131	7.1412E-02	5.7602E-10	2.6480E+15	2.6422E+09

I-133	8.0360E-03	7.0938E-12	3.2120E+13	2.9733E+08
I-135	7.8491E-06	2.2350E-15	9.9701E+09	2.9042E+05
Cs-134	3.2813E-02	2.5361E-08	1.1398E+17	1.2141E+09
Cs-136	7.6839E-03	1.0484E-10	4.6424E+14	2.8430E+08
Cs-137	1.7780E-02	2.0441E-07	8.9851E+17	6.5785E+08
I-130	2.3152E-05	1.1871E-14	5.4989E+10	8.5661E+05
Ba-137m	1.9709E-02	3.6648E-14	1.6109E+11	7.2924E+08
Br-82	1.0804E-04	9.9795E-14	7.3290E+11	3.9975E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	2.6005E+15
Organic I (atoms)	8.0427E+13
Aerosols (kg)	2.2988E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Xe-133	2.0727E-05	1.1073E-13	5.0139E+11	7.6691E+05
Xe-135	2.6818E-07	1.0501E-16	4.6845E+08	9.9226E+03
Xe-131m	9.1747E-07	1.0953E-14	5.0354E+10	3.3947E+04
Xe-133m	1.4790E-06	3.2961E-15	1.4925E+10	5.4722E+04
Xe-135m	7.6667E-07	8.4164E-18	3.7544E+07	2.8367E+04

Control Room Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.6718E+11	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.9171E-05	3.5852E-13	2.5105E+12	1.0793E+06
Sr-89	2.3570E-06	8.1131E-14	5.4897E+11	8.7211E+04
I-131	7.6310E-03	6.1553E-11	2.8296E+14	2.8235E+08
I-133	8.5872E-04	7.5804E-13	3.4324E+12	3.1773E+07
I-135	8.3875E-07	2.3883E-16	1.0654E+09	3.1034E+04
Cs-134	3.5064E-03	2.7101E-09	1.2180E+16	1.2974E+08
Cs-136	8.2110E-04	1.1203E-11	4.9609E+13	3.0381E+07

Cs-137	1.8999E-03	2.1843E-08	9.6015E+16	7.0297E+07
I-130	2.4740E-06	1.2685E-15	5.8761E+09	9.1537E+04
Ba-137m	2.1061E-03	3.9162E-15	1.7214E+10	7.7926E+07
Br-82	1.1545E-05	1.0664E-14	7.8318E+10	4.2718E+05

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	2.7789E+14
Organic I (atoms)	0.0000E+00	8.5944E+12
Aerosols (kg)	0.0000E+00	2.4565E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.7299E-04	3.3550E-12	2.3493E+13	1.0101E+07
Sr-89	2.2057E-05	7.5923E-13	5.1373E+12	8.1612E+05
I-131	7.1412E-02	5.7602E-10	2.6480E+15	2.6422E+09
I-133	8.0360E-03	7.0938E-12	3.2120E+13	2.9733E+08
I-135	7.8491E-06	2.2350E-15	9.9701E+09	2.9042E+05
Cs-134	3.2813E-02	2.5361E-08	1.1398E+17	1.2141E+09
Cs-136	7.6839E-03	1.0484E-10	4.6424E+14	2.8430E+08
Cs-137	1.7780E-02	2.0441E-07	8.9851E+17	6.5785E+08
I-130	2.3152E-05	1.1871E-14	5.4989E+10	8.5661E+05
Ba-137m	1.9709E-02	3.6648E-14	1.6109E+11	7.2924E+08
Br-82	1.0804E-04	9.9795E-14	7.3290E+11	3.9975E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	2.6005E+15
Organic I (atoms)	8.0427E+13
Aerosols (kg)	2.2988E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	3.0216E-04	3.7135E-12	2.6004E+13	1.1180E+07
Sr-89	2.4414E-05	8.4036E-13	5.6863E+12	9.0333E+05
I-131	7.9043E-02	6.3757E-10	2.9309E+15	2.9246E+09
I-133	8.8947E-03	7.8519E-12	3.5553E+13	3.2910E+08
I-135	8.6878E-06	2.4739E-15	1.1035E+10	3.2145E+05
Cs-134	3.6320E-02	2.8071E-08	1.2616E+17	1.3438E+09
Cs-136	8.5050E-03	1.1604E-10	5.1385E+14	3.1469E+08

Cs-137	1.9680E-02	2.2625E-07	9.9453E+17	7.2814E+08
I-130	2.5626E-05	1.3139E-14	6.0865E+10	9.4815E+05
Ba-137m	2.1815E-02	4.0564E-14	1.7831E+11	8.0717E+08
Br-82	1.1959E-04	1.1046E-13	8.1122E+11	4.4247E+06

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	3.3316E+01	4.0945E-07	2.8672E+18	1.2327E+12
Sr-89	2.6919E+00	9.2659E-08	6.2697E+17	9.9602E+10
I-131	8.7152E+03	7.0299E-05	3.2317E+20	3.2246E+14
I-132	4.7843E-09	4.6350E-19	2.1146E+06	1.7702E+02
I-133	9.8073E+02	8.6575E-07	3.9200E+18	3.6287E+13
I-135	9.5792E-01	2.7277E-10	1.2168E+15	3.5443E+10
Xe-133	2.5861E+03	1.3816E-05	6.2557E+19	9.5685E+13
Xe-135	3.7440E+01	1.4661E-08	6.5401E+16	1.3853E+12
Cs-134	4.0046E+03	3.0952E-03	1.3910E+22	1.4817E+14
Cs-136	9.3776E+02	1.2795E-05	5.6657E+19	3.4697E+13
Cs-137	2.1699E+03	2.4946E-02	1.0966E+23	8.0285E+13
I-130	2.8255E+00	1.4487E-09	6.7110E+15	1.0454E+11
Kr-83m	5.1915E-09	2.5162E-19	1.8257E+06	1.9209E+02
Xe-131m	2.3849E+01	2.8472E-07	1.3089E+18	8.8241E+11
Xe-133m	1.1013E+02	2.4545E-07	1.1114E+18	4.0749E+12
Xe-135m	1.5765E-01	1.7306E-12	7.7201E+12	5.8330E+09
Cs-134m	1.0519E-07	1.3044E-17	5.8622E+07	3.8921E+03
Ba-137m	2.4054E+03	4.4726E-09	1.9660E+16	8.8998E+13
Br-82	1.3186E+01	1.2179E-08	8.9445E+16	4.8787E+11
Br-83	1.2121E-09	7.6724E-20	5.5668E+05	4.4846E+01

SGs Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.5043E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.1737E+20	0.0000E+00	0.0000E+00
Organic I (atoms)	9.8155E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	2.8055E-02	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 720.0000

EAB Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	6.0203E-09	2.5429-185	2.2930E-08	6.0203E-09
Accumulated dose (rem)	1.2534E-01	6.3044E+01	1.9341E-01	3.0209E+00

LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.8370E-11	1.1983-187	1.0806E-10	2.8370E-11
Accumulated dose (rem)	8.2110E-03	3.8393E+00	1.2679E-02	1.8440E-01

Control Room Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.9647E-07	4.2775-182	2.5333E-05	1.9647E-07
Accumulated dose (rem)	1.9538E-03	9.5310E+00	1.1026E-01	4.3813E-01

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	2.3233E+03	2.8553E-05	1.9994E+20	8.5962E+13
Sr-89	3.4512E+02	1.1879E-05	8.0380E+19	1.2769E+13
I-131	1.6970E+05	1.3688E-03	6.2927E+21	6.2790E+15
I-133	1.6732E-04	1.4770E-13	6.6878E+11	6.1907E+06
Xe-133	1.6880E+04	9.0179E-05	4.0833E+20	6.2456E+14
Cs-134	7.1624E+05	5.5358E-01	2.4879E+24	2.6501E+16
Cs-136	4.3403E+04	5.9220E-04	2.6223E+21	1.6059E+15
Cs-137	3.9683E+05	4.5623E+00	2.0054E+25	1.4683E+16
Xe-131m	5.1553E+03	6.1548E-05	2.8294E+20	1.9075E+14
Xe-133m	6.2465E+00	1.3921E-08	6.3033E+16	2.3112E+11
Ba-137m	4.3990E+05	8.1796E-07	3.5955E+18	1.6276E+16
Br-82	1.1526E-02	1.0646E-11	7.8185E+13	4.2645E+08

PCS Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.9133E+20	0.0000E+00	0.0000E+00
Elemental I (atoms)	6.1039E+21	0.0000E+00	0.0000E+00
Organic I (atoms)	1.8878E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1165E+00	0.0000E+00	0.0000E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Xe-131m	5.4121E-01	6.4614E-09	2.9703E+16	2.0025E+10

Environment Transport Group Inventory:

Time (h) = 720.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.4858E+08	3.4525E+06	7.2576E+16
Elemental I (atoms)	0.0000E+00	0.0000E+00	6.4049E+17
Organic I (atoms)	0.0000E+00	0.0000E+00	1.9809E+16
Aerosols (kg)	0.0000E+00	0.0000E+00	5.3688E-04

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	1.0392E-04	1.2772E-12	8.9434E+12	3.8451E+06
Sr-89	1.5437E-05	5.3136E-13	3.5954E+12	5.7118E+05
I-131	7.5908E-03	6.1229E-11	2.8147E+14	2.8086E+08
Cs-134	3.2037E-02	2.4762E-08	1.1128E+17	1.1854E+09
Cs-136	1.9414E-03	2.6489E-11	1.1729E+14	7.1832E+07
Cs-137	1.7750E-02	2.0407E-07	8.9704E+17	6.5677E+08
Ba-137m	1.9677E-02	3.6587E-14	1.6083E+11	7.2804E+08
Br-82	5.1555E-10	4.7620E-19	3.4972E+06	1.9075E+01

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	2.7303E+14
Organic I (atoms)	8.4441E+12
Aerosols (kg)	2.2886E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Xe-131m	9.7524E-08	1.1643E-15	5.3524E+09	3.6084E+03

Control Room Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.3524E+09	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	1.1105E-05	1.3648E-13	9.5569E+11	4.1088E+05
Sr-89	1.6496E-06	5.6781E-14	3.8420E+11	6.1036E+04
I-131	8.1115E-04	6.5429E-12	3.0078E+13	3.0013E+07
Cs-134	3.4235E-03	2.6460E-09	1.1892E+16	1.2667E+08
Cs-136	2.0746E-04	2.8306E-12	1.2534E+13	7.6760E+06
Cs-137	1.8968E-03	2.1807E-08	9.5857E+16	7.0182E+07
Ba-137m	2.1027E-03	3.9097E-15	1.7186E+10	7.7798E+07

Br-82	5.5091E-11	5.0886E-20	3.7371E+05	2.0384E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	2.9176E+13
Organic I (atoms)	0.0000E+00	9.0234E+11
Aerosols (kg)	0.0000E+00	2.4456E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	1.0392E-04	1.2772E-12	8.9434E+12	3.8451E+06
Sr-89	1.5437E-05	5.3136E-13	3.5954E+12	5.7118E+05
I-131	7.5908E-03	6.1229E-11	2.8147E+14	2.8086E+08
Cs-134	3.2037E-02	2.4762E-08	1.1128E+17	1.1854E+09
Cs-136	1.9414E-03	2.6489E-11	1.1729E+14	7.1832E+07
Cs-137	1.7750E-02	2.0407E-07	8.9704E+17	6.5677E+08
Ba-137m	1.9677E-02	3.6587E-14	1.6083E+11	7.2804E+08
Br-82	5.1555E-10	4.7620E-19	3.4972E+06	1.9075E+01

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	2.7303E+14
Organic I (atoms)	8.4441E+12
Aerosols (kg)	2.2886E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	1.1503E-04	1.4137E-12	9.8991E+12	4.2560E+06
Sr-89	1.7087E-05	5.8814E-13	3.9796E+12	6.3221E+05
I-131	8.4020E-03	6.7772E-11	3.1155E+14	3.1087E+08
Cs-134	3.5461E-02	2.7408E-08	1.2317E+17	1.3121E+09
Cs-136	2.1489E-03	2.9320E-11	1.2983E+14	7.9508E+07
Cs-137	1.9647E-02	2.2588E-07	9.9289E+17	7.2695E+08
Ba-137m	2.1779E-02	4.0497E-14	1.7801E+11	8.0584E+08
Br-82	5.7064E-10	5.2708E-19	3.8709E+06	2.1114E+01

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	1.2683E+01	1.5587E-07	1.0915E+18	4.6926E+11

Sr-89	1.8840E+00	6.4849E-08	4.3879E+17	6.9708E+10
I-131	9.2640E+02	7.4725E-06	3.4352E+19	3.4277E+13
I-133	9.1338E-07	8.0629E-16	3.6508E+09	3.3795E+04
Xe-133	9.2147E+01	4.9229E-07	2.2290E+18	3.4094E+12
Cs-134	3.9099E+03	3.0220E-03	1.3581E+22	1.4467E+14
Cs-136	2.3694E+02	3.2328E-06	1.4315E+19	8.7666E+12
Cs-137	2.1663E+03	2.4905E-02	1.0948E+23	8.0153E+13
Xe-131m	2.8143E+01	3.3599E-07	1.5446E+18	1.0413E+12
Xe-133m	3.4099E-02	7.5995E-11	3.4410E+14	1.2617E+09
Ba-137m	2.4014E+03	4.4652E-09	1.9628E+16	8.8852E+13
Br-82	6.2919E-05	5.8116E-14	4.2681E+11	2.3280E+06

SGs Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.7739E+18	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.3321E+19	0.0000E+00	0.0000E+00
Organic I (atoms)	1.0305E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	2.7931E-02	0.0000E+00	0.0000E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Transport Group Totals in Model:

Noble Gases	(atoms)	6.9518E+20
Elemental I	(atoms)	6.1379E+21
Organic I	(atoms)	1.8983E+20
Aerosols	(kg)	5.1449E+00

37004

##
I-131 Summary
##

Time (hr)	PCS I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	2.2440E+04	3.2121E-14	1.2336E-16
0.000	2.2440E+06	3.2121E-08	1.2336E-10
0.025	2.2662E+06	6.0572E-03	2.3139E-05
0.300	2.2635E+06	8.7174E-01	5.1650E-03
0.306	2.2635E+06	9.0430E-01	5.3480E-03
0.333	2.2632E+06	9.8328E-01	5.5879E-03
0.500	2.2616E+06	1.6050E+00	2.5812E-03
0.760	2.2591E+06	2.8229E+00	8.1736E-04
1.020	2.2566E+06	4.5394E+00	3.2409E-04
1.280	2.2540E+06	6.7528E+00	2.0326E-04

1.540	2.2515E+06	9.4613E+00	1.9155E-04
1.800	2.2490E+06	1.2663E+01	2.1177E-04
2.000	2.2471E+06	1.5460E+01	2.3410E-04
2.260	2.2446E+06	1.9528E+01	2.2953E-04
2.520	2.2421E+06	2.4084E+01	2.4730E-04
2.780	2.2396E+06	2.9126E+01	2.7157E-04
3.040	2.2371E+06	3.4650E+01	2.9766E-04
3.300	2.2346E+06	4.0655E+01	3.2424E-04
3.560	2.2321E+06	4.7139E+01	3.5089E-04
3.820	2.2296E+06	5.4100E+01	3.7751E-04
4.080	2.2272E+06	6.1536E+01	4.0404E-04
4.340	2.2247E+06	6.9445E+01	4.3050E-04
4.600	2.2222E+06	7.7825E+01	4.5687E-04
4.860	2.2197E+06	8.6673E+01	4.8315E-04
5.120	2.2173E+06	9.5988E+01	5.0934E-04
5.380	2.2148E+06	1.0577E+02	5.3545E-04
5.640	2.2123E+06	1.1601E+02	5.6147E-04
5.900	2.2099E+06	1.2671E+02	5.8740E-04
6.160	2.2074E+06	1.3788E+02	6.1325E-04
6.420	2.2049E+06	1.4949E+02	6.3901E-04
6.680	2.2025E+06	1.6157E+02	6.6468E-04
6.940	2.2000E+06	1.7409E+02	6.9027E-04
7.200	2.1976E+06	1.8707E+02	7.1577E-04
7.460	2.1951E+06	2.0050E+02	7.4119E-04
7.720	2.1927E+06	2.1437E+02	7.6652E-04
7.980	2.1902E+06	2.2868E+02	7.9177E-04
8.000	2.1901E+06	2.2980E+02	7.9371E-04
8.260	2.1880E+06	2.2959E+02	2.3272E-04
8.520	2.1860E+06	2.2938E+02	6.8234E-05
8.780	2.1839E+06	2.2916E+02	2.0007E-05
9.040	2.1819E+06	2.2895E+02	5.8660E-06
9.300	2.1798E+06	2.2873E+02	1.7200E-06
9.560	2.1778E+06	2.2852E+02	5.0430E-07
9.820	2.1758E+06	2.2831E+02	1.4786E-07
10.080	2.1738E+06	2.2809E+02	4.3354E-08
24.000	2.0677E+06	2.1697E+02	1.2888E-36
96.000	1.5965E+06	1.6752E+02	3.6105-184
720.000	1.6970E+05	1.7807E+01	0.0000E+00

Time (hr)	SGs I-131 (Curies)
0.000	7.7819E-06
0.000	7.7819E-02
0.025	3.9209E+01
0.300	4.7007E+02
0.306	4.7875E+02
0.333	5.2217E+02
0.500	7.8273E+02
0.760	1.1882E+03
1.020	1.5923E+03
1.280	1.9951E+03
1.540	2.3966E+03
1.800	2.7967E+03
2.000	3.1037E+03
2.260	3.5015E+03
2.520	3.8980E+03
2.780	4.2932E+03
3.040	4.6871E+03
3.300	5.0797E+03
3.560	5.4709E+03
3.820	5.8609E+03
4.080	6.2496E+03
4.340	6.6370E+03
4.600	7.0231E+03
4.860	7.4080E+03
5.120	7.7915E+03
5.380	8.1738E+03
5.640	8.5548E+03
5.900	8.9345E+03
6.160	9.3130E+03
6.420	9.6902E+03
6.680	1.0066E+04
6.940	1.0441E+04

7.200	1.0814E+04
7.460	1.1186E+04
7.720	1.1557E+04
7.980	1.1927E+04
8.000	1.1955E+04
8.260	1.1944E+04
8.520	1.1933E+04
8.780	1.1922E+04
9.040	1.1911E+04
9.300	1.1900E+04
9.560	1.1889E+04
9.820	1.1878E+04
10.080	1.1866E+04
24.000	1.1288E+04
96.000	8.7152E+03
720.000	9.2640E+02

```
#####################################################################
                        Cumulative Dose Summary
#####################################################################
```

	EAB		LPZ		Control Room	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	9.2319E-15	4.9249E-16	1.1407E-15	6.0853E-17	1.1640E-19	5.3260E-21
0.000	9.2319E-09	4.9249E-10	1.1407E-09	6.0853E-11	5.8205E-12	2.6632E-13
0.025	1.7409E-03	9.2778E-05	2.1510E-04	1.1464E-05	4.4515E-04	2.0366E-05
0.300	2.5000E-01	1.3054E-02	3.0891E-02	1.6129E-03	9.9517E-01	4.5444E-02
0.306	2.5933E-01	1.3535E-02	3.2043E-02	1.6725E-03	1.0501E+00	4.7949E-02
0.333	2.8196E-01	1.4703E-02	3.4840E-02	1.8167E-03	1.3351E+00	6.0955E-02
0.500	4.5990E-01	2.3811E-02	5.6827E-02	2.9421E-03	2.5525E+00	1.1648E-01
0.760	8.0762E-01	4.1356E-02	9.9792E-02	5.1100E-03	3.2930E+00	1.5023E-01
1.020	1.2963E+00	6.5698E-02	1.6017E-01	8.1177E-03	3.5445E+00	1.6169E-01
1.280	1.9247E+00	9.6701E-02	2.3782E-01	1.1949E-02	3.6646E+00	1.6716E-01
1.540	2.6916E+00	1.3426E-01	3.3258E-01	1.6590E-02	3.7576E+00	1.7140E-01
1.800	3.5958E+00	1.7829E-01	4.4430E-01	2.2030E-02	3.8539E+00	1.7579E-01
2.000	4.3839E+00	2.1653E-01	5.4168E-01	2.6754E-02	3.9360E+00	1.7953E-01
2.260	5.5280E+00	2.7185E-01	6.0600E-01	2.9864E-02	4.0454E+00	1.8452E-01
2.520	6.8060E+00	3.3347E-01	6.7784E-01	3.3328E-02	4.1586E+00	1.8969E-01
2.780	8.2168E+00	4.0133E-01	7.5715E-01	3.7143E-02	4.2818E+00	1.9532E-01
3.040	9.7593E+00	4.7540E-01	8.4386E-01	4.1307E-02	4.4167E+00	2.0149E-01
3.300	1.1432E+01	5.5561E-01	9.3792E-01	4.5816E-02	4.5637E+00	2.0822E-01
3.560	1.3235E+01	6.4194E-01	1.0393E+00	5.0669E-02	4.7229E+00	2.1550E-01
3.820	1.5166E+01	7.3433E-01	1.1478E+00	5.5863E-02	4.8943E+00	2.2335E-01
4.080	1.7225E+01	8.3274E-01	1.2635E+00	6.1395E-02	5.0776E+00	2.3176E-01
4.340	1.9410E+01	9.3715E-01	1.3864E+00	6.7264E-02	5.2729E+00	2.4072E-01
4.600	2.1720E+01	1.0475E+00	1.5162E+00	7.3467E-02	5.4800E+00	2.5023E-01
4.860	2.4155E+01	1.1637E+00	1.6531E+00	8.0003E-02	5.6989E+00	2.6029E-01
5.120	2.6713E+01	1.2859E+00	1.7969E+00	8.6868E-02	5.9295E+00	2.7090E-01
5.380	2.9394E+01	1.4138E+00	1.9476E+00	9.4061E-02	6.1716E+00	2.8204E-01
5.640	3.2196E+01	1.5476E+00	2.1051E+00	1.0158E-01	6.4252E+00	2.9373E-01
5.900	3.5119E+01	1.6871E+00	2.2695E+00	1.0942E-01	6.6902E+00	3.0595E-01
6.160	3.8162E+01	1.8323E+00	2.4405E+00	1.1759E-01	6.9666E+00	3.1870E-01
6.420	4.1324E+01	1.9833E+00	2.6183E+00	1.2607E-01	7.2541E+00	3.3198E-01
6.680	4.4603E+01	2.1399E+00	2.8026E+00	1.3488E-01	7.5528E+00	3.4579E-01
6.940	4.8000E+01	2.3021E+00	2.9936E+00	1.4399E-01	7.8626E+00	3.6012E-01
7.200	5.1514E+01	2.4699E+00	3.1911E+00	1.5343E-01	8.1833E+00	3.7497E-01
7.460	5.5142E+01	2.6432E+00	3.3951E+00	1.6317E-01	8.5150E+00	3.9034E-01
7.720	5.8886E+01	2.8221E+00	3.6055E+00	1.7323E-01	8.8575E+00	4.0622E-01
7.980	6.2743E+01	3.0065E+00	3.8223E+00	1.8359E-01	9.2107E+00	4.2261E-01
8.000	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.2384E+00	4.2389E-01
8.260	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.4454E+00	4.3352E-01
8.520	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5060E+00	4.3635E-01
8.780	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5237E+00	4.3719E-01
9.040	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5289E+00	4.3745E-01
9.300	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5304E+00	4.3754E-01
9.560	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5309E+00	4.3758E-01
9.820	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5310E+00	4.3760E-01
10.080	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5310E+00	4.3762E-01
24.000	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5310E+00	4.3805E-01
96.000	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5310E+00	4.3813E-01
720.000	6.3044E+01	3.0209E+00	3.8393E+00	1.8440E-01	9.5310E+00	4.3813E-01

```
#####################################################################
                        Worst Two-Hour Dose
                    (Provided for Dose Location 1)
#####################################################################

EAB
   Time   Whole Body    Thyroid        Skin        TEDE
   (hr)     (rem)        (rem)         (rem)       (rem)
    6.0   4.2531E-02   2.6755E+01   6.6347E-02   1.2780E+00

#####################################################################
                      30 Day Control Room Skin Dose
#####################################################################

Control Room
   Time     Skin
   (hr)     (rem)
  720.0   1.1026E-01
```

Attachment 7 Secondary Side Release FCM Iodine Release Dose

```
#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:29:01
#######################################################################

#######################################################################
                    File information
#######################################################################

Plant file name           = AST/CRE/pal_CRE_FCM_sec_iodine_db_ast.psf
Inventory file name       = AST/CRE/palisades_loca_db_ast.nif
Scenario file name        = AST/CRE/pal_CRE_FCM_sec_iodine_db_ast.psf
Release file name         = AST/CRE/pal_cre_fcm_sec_iodine_ast.rft
Dose conversion file name = AST/CRE/nai-1101-001rev0.dcf




     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #


*RADTRAD-NAI 1.1a(QA)
*18 May 2006 13:28:47
** Palisades CRE Design Basis
** FCM Secondary Release Iodine Dose
**
*Nuclide inventory file
AST/CRE/palisades_loca_db_ast.nif
*Plant power
27.5706
*Compartments
4
*Compartment 1:
PCS
   3
432976.8
   0
   0
   0
   0
*Compartment 2:
Environment
   2
2e+20
   0
   0
   0
   0
*Compartment 3:
Control Room
   1
35923
   0
   1
   0
   0
*Compartment 4:
SGs
   3
282130
   0
   0
   0
   0
```

```
*Pathways
   6
*Pathway 1:
SG Tube Leakage
   1
   4
   2
*Pathway 2:
Control Room Unfiltered Makeup
   2
   3
   2
*Pathway 3:
Control Room Filtered Makeup
   2
   3
   2
*Pathway 4:
Control Room Unfiltered Inleakage
   2
   3
   2
*Pathway 5:
Control Room Exhaust
   3
   2
   2
*Pathway 6:
SRV/ADV Steam Release
   4
   2
   2
*Sources
   4
   1 1
   2 0
   3 0
   4 0
*dose conversion factors filename
AST/CRE/nai-1101-001rev0.dcf
*release fraction and timing filename
AST/CRE/pal_cre_fcm_sec_iodine_ast.rft
0
   1
   1
*Iodine
0 0.97 0.03
*Overlying pool
*aerosol model
   0
*elemental model
   0
*organic model
   0
*pH tracking
   0
*Compartment detail
*Compartment 1:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Compartment 2:
   1
*spray model
0
0
```

```
0
*filter model
0
*deposition model
0
0
*Compartment 3:
   1
*spray model
0
0
0
*filter model
   1
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*deposition model
0
0
*Compartment 4:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
*Pathways:
*Pathway 1
*filter efficiency model
   1
   3
0 5.005 0 0 0
8 0 0 0 0
720 0 0 0 0
*Pathway 2
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 0 0 0 0
720 0 0 0 0
*Pathway 3
*filter efficiency model
   1
   3
0 0 99 99 99
0.3333 1413.6 99 99 99
720 1413.6 99 99 99
*Pathway 4
*filter efficiency model
   1
   3
0 0 0 0 0
0.3333 10 0 0 0
720 10 0 0 0
*Pathway 5
*filter efficiency model
   1
   4
0 384.2 0 0 0
0.025 660 0 0 0
0.3333 1423.6 0 0 0
720 1423.6 0 0 0
*Pathway 6
*filter efficiency model
   1
```

```
   5
0 58.45 0 0 0
0.305556 26.86 0 0 0
0.5 22.38 0 0 0
8 0 0 0 0
720 0 0 0 0
*x/q tables
   4
EAB
   2
0 0.000539
720 0.000539
LPZ
   6
0 6.66e-05
2 3.03e-05
8 2.04e-05
24 8.67e-06
96 2.54e-06
720 2.54e-06
Control Room Unfiltered
   7
0 0.0211
0.305556 0.0165
2 0.0134
8 0.0054
24 0.00403
96 0.00298
720 0.00298
Control Room Filtered
   7
0 0.000796
0.305556 0.000736
2 0.000642
8 0.000243
24 0.000175
96 0.000128
720 0.000128
*dose locations
   3
*location name, compartment number and x/q table
EAB
   2
   1
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
LPZ
   2
   2
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
Control Room
   3
```

```
   0
*br model
   1
   2
0 0.00035
720 0.00035
*of model
   1
   4
0 1
24 0.6
96 0.4
720 0.4
*location x/q input to be included
   1
*number of intake combinations
   3
*intake combinations
2 6 3
3 6 4
4 6 3
*time step count
   3
0 1e-06
0.001 0.02
720 0.02
*show plant, scenario, event, step, model
   1
   1
   1
   0
   1

 ######################################################################
       RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:29:01
 ######################################################################

 ######################################################################
                     Plant Description
 ######################################################################

 Number of Nuclides = 107

 Inventory Power =   2.7030E+03 MWth
 Plant Power Level =   2.7571E+01 MWth

 Number of compartments    =   4

 Compartment information

 Compartment number  1  (Source term fraction =   1.0000E+00)
 Name: PCS
 Compartment volume =   4.3298E+05 (Cubic feet)
 Pathways into and out of compartment  1
     Pathway to compartment number   4: SG Tube Leakage

 Compartment number  2
 Name: Environment
 Pathways into and out of compartment  2
     Pathway to compartment number   3: Control Room Unfiltered Makeup
     Pathway to compartment number   3: Control Room Filtered Makeup
     Pathway to compartment number   3: Control Room Unfiltered Inleakage
     Pathway from compartment number 3: Control Room Exhaust
     Pathway from compartment number 4: SRV/ADV Steam Release

 Compartment number  3
 Name: Control Room
 Compartment volume =   3.5923E+04 (Cubic feet)
 Removal devices within compartment:
      Filter(s)
 Pathways into and out of compartment  3
     Pathway to compartment number   2: Control Room Exhaust
     Pathway from compartment number 2: Control Room Unfiltered Makeup
```

```
    Pathway from compartment number 2: Control Room Filtered Makeup
    Pathway from compartment number 2: Control Room Unfiltered Inleakage

Compartment number  4
Name: SGs
Compartment volume =   2.8213E+05 (Cubic feet)
Pathways into and out of compartment  4
    Pathway to compartment number   2: SRV/ADV Steam Release
    Pathway from compartment number 1: SG Tube Leakage

Total number of pathways =   6


#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:29:01
#######################################################################

#######################################################################
                     Scenario Description
#######################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Iodine fractions
     Aerosol     =   0.0000E+00
     Elemental   =   9.7000E-01
     Organic     =   3.0000E-02

COMPARTMENT DATA

Compartment number   1: PCS

Compartment number   2: Environment

Compartment number   3: Control Room

     Compartment Filter Data

      Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   9.9000E+01   9.9000E+01   9.9000E+01
       3.3330E-01    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01
       7.2000E+02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01

Compartment number   4: SGs

PATHWAY DATA

Pathway number  1: SG Tube Leakage

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    5.0050E+00   0.0000E+00   0.0000E+00   0.0000E+00
       8.0000E+00    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  2: Control Room Unfiltered Makeup

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    3.8420E+02   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    6.6000E+02   0.0000E+00   0.0000E+00   0.0000E+00
       3.3330E-01    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  3: Control Room Filtered Makeup

     Pathway Filter: Removal Data
```

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	9.9000E+01	9.9000E+01	9.9000E+01
3.3330E-01	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	1.4136E+03	9.9000E+01	9.9000E+01	9.9000E+01

Pathway number 4: Control Room Unfiltered Inleakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Control Room Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	3.8420E+02	0.0000E+00	0.0000E+00	0.0000E+00
2.5000E-02	6.6000E+02	0.0000E+00	0.0000E+00	0.0000E+00
3.3330E-01	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	1.4236E+03	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 6: SRV/ADV Steam Release

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.8450E+01	0.0000E+00	0.0000E+00	0.0000E+00
3.0556E-01	2.6860E+01	0.0000E+00	0.0000E+00	0.0000E+00
5.0000E-01	2.2380E+01	0.0000E+00	0.0000E+00	0.0000E+00
8.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

X/Q DATA

X/Q table 1: EAB

Time (hr)	X/Q (s * m^-3)
0.0000E+00	5.3900E-04
7.2000E+02	5.3900E-04

X/Q table 2: LPZ

Time (hr)	X/Q (s * m^-3)
0.0000E+00	6.6600E-05
2.0000E+00	3.0300E-05
8.0000E+00	2.0400E-05
2.4000E+01	8.6700E-06
9.6000E+01	2.5400E-06
7.2000E+02	2.5400E-06

X/Q table 3: Control Room Unfiltered

Time (hr)	X/Q (s * m^-3)
0.0000E+00	2.1100E-02
3.0556E-01	1.6500E-02
2.0000E+00	1.3400E-02
8.0000E+00	5.4000E-03
2.4000E+01	4.0300E-03
9.6000E+01	2.9800E-03
7.2000E+02	2.9800E-03

X/Q table 4: Control Room Filtered

Time (hr)	X/Q (s * m^-3)
0.0000E+00	7.9600E-04
3.0556E-01	7.3600E-04
2.0000E+00	6.4200E-04
8.0000E+00	2.4300E-04
2.4000E+01	1.7500E-04

```
       9.6000E+01          1.2800E-04
       7.2000E+02          1.2800E-04

LOCATION DATA

     Location EAB is in compartment   2

     Using X/Q Table   1

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location LPZ is in compartment   2

     Using X/Q Table   2

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location Control Room is in compartment   3

     Inleakage X/Q Table Assignments
     Inleakage Path   Source Path  X/Q Table
            2              6           3
            3              6           4
            4              6           3

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       7.2000E+02                3.5000E-04

     Location Occupancy Factor Data
      Time (hr)         Occupancy Factor
       0.0000E+00            1.0000E+00
       2.4000E+01            6.0000E-01
       9.6000E+01            4.0000E-01
       7.2000E+02            4.0000E-01

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
      0.0000E+00       1.0000E-06
      1.0000E-03       2.0000E-02
      7.2000E+02       2.0000E-02

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:29:01
#######################################################################


     ####   #    #  #####  #####   #    #  #####
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #####   #    #    #
    #    #  #    #    #    #       #    #    #
    #    #  #    #    #    #       #    #    #
     ####    ####     #    #        ####     #


#####################################################################
           Dose, Detailed Model and Detailed Inventory Output
#####################################################################
```

Detailed model information at time (H) = 0.0001

EAB Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	8.4371E-12	1.5542E-09	1.3053E-11	6.1947E-11
Accumulated dose (rem)	8.4371E-12	1.5542E-09	1.3053E-11	6.1947E-11

LPZ Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.0425E-12	1.9204E-10	1.6129E-12	7.6544E-12
Accumulated dose (rem)	1.0425E-12	1.9204E-10	1.6129E-12	7.6544E-12

Control Room Doses:

Time (h) = 0.0001	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.5713E-16	9.7988E-13	8.2297E-15	3.3894E-14
Accumulated dose (rem)	1.5713E-16	9.7988E-13	8.2297E-15	3.3894E-14

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Rb-86	2.3978E+02	2.9469E-06	2.0636E+19	8.8719E+12
Sr-89	2.4370E-03	8.3883E-11	5.6759E+14	9.0168E+07
I-131	3.8163E+05	3.0783E-03	1.4151E+22	1.4120E+16
I-132	5.4467E+05	5.2767E-05	2.4074E+20	2.0153E+16
I-133	7.4562E+05	6.5820E-04	2.9803E+21	2.7588E+16
I-134	8.1698E+05	3.0625E-05	1.3763E+20	3.0228E+16
I-135	6.9971E+05	1.9924E-04	8.8879E+20	2.5889E+16
Xe-133	2.0132E-01	1.0756E-09	4.8700E+15	7.4490E+09
Xe-135	2.2796E+00	8.9264E-10	3.9819E+15	8.4344E+10
Cs-134	2.4933E+04	1.9271E-02	8.6605E+22	9.2252E+14
Cs-136	7.1886E+03	9.8082E-05	4.3431E+20	2.6598E+14
Cs-137	1.3464E+04	1.5479E-01	6.8042E+23	4.9817E+14
I-130	1.9089E+04	9.7876E-06	4.5340E+19	7.0630E+14
Kr-83m	8.8789E-01	4.3034E-11	3.1224E+14	3.2852E+10
Xe-131m	5.1919E-04	6.1985E-12	2.8495E+13	1.9210E+07
Xe-133m	1.4414E-02	3.2123E-11	1.4545E+14	5.3330E+08
Xe-135m	1.4800E+01	1.6247E-10	7.2477E+14	5.4760E+11
Cs-138	1.6400E+05	3.8759E-06	1.6914E+19	6.0682E+15
Cs-134m	6.0219E+03	7.4674E-07	3.3559E+18	2.2281E+14
Rb-88	6.5709E+04	5.4740E-07	3.7460E+18	2.4312E+15
Rb-89	8.4372E+04	6.0703E-07	4.1074E+18	3.1218E+15
Ba-137m	1.0477E+01	1.9481E-11	8.5632E+13	3.8764E+11
Br-82	2.6938E+03	2.4882E-06	1.8273E+19	9.9671E+13
Br-83	4.6419E+04	2.9383E-06	2.1319E+19	1.7175E+15
Br-84	8.1130E+04	1.1526E-06	8.2630E+18	3.0018E+15

PCS Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.0063E+16	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.7937E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	5.5475E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7417E-01	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00

```
Aerosols (kg)          0.0000E+00

Environment Integral Nuclide Release:

Time (h) =   0.0001       Ci           kg          Atoms         Bq
I-131                 5.4627E-09  4.4063E-17  2.0256E+08  2.0212E+02
I-132                 7.7964E-09  7.5530E-19  3.4459E+06  2.8847E+02
I-133                 1.0673E-08  9.4215E-18  4.2660E+07  3.9489E+02
I-135                 1.0016E-08  2.8520E-18  1.2722E+07  3.7058E+02
Cs-134                3.5689E-10  2.7584E-16  1.2397E+09  1.3205E+01
Cs-136                1.0290E-10  1.4039E-18  6.2167E+06  3.8072E+00
Cs-137                1.9272E-10  2.2157E-15  9.7395E+09  7.1308E+00

Environment Transport Group Inventory:

                       Present     Release     Integral
Time (h) =   0.0001    Release     Rate/s      Release
Noble gases (atoms)    5.7040E+00  1.5844E+03  2.1534E+02
Elemental I (atoms)    7.6258E+06  2.1183E+09  2.5675E+08
Organic I (atoms)      2.3585E+05  6.5513E+07  7.9407E+06
Aerosols (kg)          7.4046E-17  2.0568E-14  2.4930E-15

Control Room Unfiltered Makeup Transport Group Inventory:

                       Pathway
Time (h) =   0.0001     Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                       Pathway
Time (h) =   0.0001     Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                       Pathway
Time (h) =   0.0001     Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                       Pathway
Time (h) =   0.0001     Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

                       Pathway
Time (h) =   0.0001     Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0001       Ci           kg          Atoms         Bq
I-131                 2.0980E-11  1.6923E-19  7.7794E+05  7.7625E-01
I-133                 4.0989E-11  3.6184E-20  1.6384E+05  1.5166E+00
Cs-134                1.3706E-12  1.0594E-18  4.7610E+06  5.0714E-02
```

Cs-137	7.4016E-13	8.5094E-18	3.7405E+07	2.7386E-02

Control Room Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	8.2702E-01	0.0000E+00	0.0000E+00
Elemental I (atoms)	9.8606E+05	0.0000E+00	0.0000E+00
Organic I (atoms)	3.0497E+04	0.0000E+00	0.0000E+00
Aerosols (kg)	9.5746E-18	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Rb-86	8.3153E-06	1.0219E-13	7.1561E+11	3.0766E+05
Sr-89	1.1240E-10	3.8689E-18	2.6179E+07	4.1588E+00
I-131	1.3234E-02	1.0675E-10	4.9074E+14	4.8968E+08
I-132	1.8888E-02	1.8299E-12	8.3483E+12	6.9887E+08
I-133	2.5857E-02	2.2825E-11	1.0335E+14	9.5671E+08
I-134	2.8331E-02	1.0620E-12	4.7729E+12	1.0483E+09
I-135	2.4265E-02	6.9095E-12	3.0822E+13	8.9780E+08
Xe-133	9.2856E-09	4.9607E-17	2.2462E+08	3.4357E+02
Xe-135	1.0514E-07	4.1171E-17	1.8366E+08	3.8901E+03
Cs-134	8.6464E-04	6.6828E-10	3.0033E+15	3.1992E+07
Cs-136	2.4929E-04	3.4014E-12	1.5061E+13	9.2237E+06
Cs-137	4.6691E-04	5.3679E-09	2.3596E+16	1.7276E+07
I-130	6.6198E-04	3.3942E-13	1.5723E+12	2.4493E+07
Kr-83m	4.0952E-08	1.9849E-18	1.4401E+07	1.5152E+03
Xe-131m	2.3946E-11	2.8589E-19	1.3142E+06	8.8602E-01
Xe-133m	6.6479E-10	1.4816E-18	6.7085E+06	2.4597E+01

Xe-135m	6.8261E-07	7.4936E-18	3.3428E+07	2.5256E+04
Cs-138	5.6873E-03	1.3441E-13	5.8653E+11	2.1043E+08
Cs-134m	2.0883E-04	2.5896E-14	1.1638E+11	7.7268E+06
Rb-88	2.2786E-03	1.8982E-14	1.2990E+11	8.4308E+07
Rb-89	2.9259E-03	2.1051E-14	1.4244E+11	1.0826E+08
Ba-137m	4.8318E-07	8.9843E-19	3.9493E+06	1.7878E+04
Br-82	9.3418E-05	8.6287E-14	6.3370E+11	3.4564E+06
Br-83	1.6097E-03	1.0190E-13	7.3932E+11	5.9560E+07
Br-84	2.8135E-03	3.9969E-14	2.8655E+11	1.0410E+08

SGs Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	4.6413E+08	0.0000E+00	0.0000E+00
Elemental I (atoms)	6.2203E+14	0.0000E+00	0.0000E+00
Organic I (atoms)	1.9238E+13	0.0000E+00	0.0000E+00
Aerosols (kg)	6.0399E-09	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 0.0250

EAB Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.5845E-06	2.9307E-04	2.4503E-06	1.1674E-05
Accumulated dose (rem)	1.5845E-06	2.9307E-04	2.4504E-06	1.1674E-05

LPZ Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.9578E-07	3.6212E-05	3.0277E-07	1.4425E-06
Accumulated dose (rem)	1.9578E-07	3.6212E-05	3.0277E-07	1.4425E-06

Control Room Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.1963E-08	7.4941E-05	6.2629E-07	2.5920E-06
Accumulated dose (rem)	1.1963E-08	7.4941E-05	6.2629E-07	2.5920E-06

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Rb-86	2.4217E+02	2.9762E-06	2.0841E+19	8.9601E+12
Sr-89	1.1755E+00	4.0462E-08	2.7378E+17	4.3494E+10
I-131	3.8541E+05	3.1088E-03	1.4291E+22	1.4260E+16
I-132	5.4600E+05	5.2896E-05	2.4132E+20	2.0202E+16
I-133	7.5244E+05	6.6422E-04	3.0075E+21	2.7840E+16
I-134	8.0905E+05	3.0328E-05	1.3630E+20	2.9935E+16

I-135	7.0485E+05	2.0071E-04	8.9532E+20	2.6080E+16
Xe-133	1.0042E+02	5.3646E-07	2.4290E+18	3.7154E+12
Xe-135	1.1382E+03	4.4570E-07	1.9882E+18	4.2114E+13
Cs-134	2.5182E+04	1.9463E-02	8.7469E+22	9.3172E+14
Cs-136	7.2599E+03	9.9056E-05	4.3862E+20	2.6862E+14
Cs-137	1.3598E+04	1.5634E-01	6.8721E+23	5.0314E+14
I-130	1.9253E+04	9.8715E-06	4.5729E+19	7.1236E+14
Kr-83m	4.4067E+02	2.1358E-08	1.5497E+17	1.6305E+13
Xe-131m	2.5906E-01	3.0928E-09	1.4218E+16	9.5851E+09
Xe-133m	7.1888E+00	1.6021E-08	7.2543E+16	2.6599E+11
Xe-135m	7.2821E+03	7.9942E-08	3.5661E+17	2.6944E+14
Cs-138	1.6040E+05	3.7907E-06	1.6542E+19	5.9348E+15
Cs-134m	6.0460E+03	7.4972E-07	3.3693E+18	2.2370E+14
Rb-88	6.2614E+04	5.2162E-07	3.5696E+18	2.3167E+15
Rb-89	7.9602E+04	5.7271E-07	3.8752E+18	2.9453E+15
Ba-137m	4.8533E+03	9.0244E-09	3.9669E+16	1.7957E+14
Br-82	2.7194E+03	2.5118E-06	1.8447E+19	1.0062E+14
Br-83	4.6545E+04	2.9463E-06	2.1377E+19	1.7222E+15
Br-84	7.9315E+04	1.1268E-06	8.0781E+18	2.9347E+15

PCS Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.0156E+18	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.8105E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	5.5996E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7591E-01	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Rb-86	6.4727E-07	7.9550E-15	5.5705E+10	2.3949E+04
Sr-89	3.1420E-09	1.0815E-16	7.3178E+08	1.1625E+02
I-131	1.0301E-03	8.3093E-12	3.8198E+13	3.8115E+07
I-132	1.4594E-03	1.4138E-13	6.4502E+11	5.3997E+07
I-133	2.0112E-03	1.7754E-12	8.0387E+12	7.4413E+07
I-134	2.1625E-03	8.1062E-14	3.6430E+11	8.0012E+07
I-135	1.8840E-03	5.3646E-13	2.3931E+12	6.9707E+07
Xe-133	2.6840E-07	1.4339E-15	6.4925E+09	9.9306E+03
Xe-135	3.0423E-06	1.1913E-15	5.3142E+09	1.1256E+05
Cs-134	6.7307E-05	5.2022E-11	2.3379E+14	2.4904E+06
Cs-136	1.9405E-05	2.6476E-13	1.1724E+12	7.1797E+05
Cs-137	3.6347E-05	4.1786E-10	1.8368E+15	1.3448E+06
I-130	5.1460E-05	2.6385E-14	1.2223E+11	1.9040E+06
Kr-83m	1.1778E-06	5.7088E-17	4.1421E+08	4.3580E+04
Xe-131m	6.9243E-10	8.2667E-18	3.8002E+07	2.5620E+01
Xe-133m	1.9215E-08	4.2823E-17	1.9390E+08	7.1095E+02
Xe-135m	1.9464E-05	2.1367E-16	9.5317E+08	7.2017E+05
Cs-138	4.2872E-04	1.0132E-14	4.4214E+10	1.5863E+07
Cs-134m	1.6160E-05	2.0039E-15	9.0057E+09	5.9792E+05
Rb-88	1.6736E-04	1.3942E-15	9.5410E+09	6.1922E+06
Rb-89	2.1276E-04	1.5308E-15	1.0358E+10	7.8723E+06
Ba-137m	1.2972E-05	2.4121E-17	1.0603E+08	4.7998E+05
Br-82	7.2685E-06	6.7137E-15	4.9306E+10	2.6893E+05
Br-83	1.2441E-04	7.8750E-15	5.7138E+10	4.6031E+06
Br-84	2.1200E-04	3.0117E-15	2.1592E+10	7.8439E+06

Environment Transport Group Inventory:

Time (h) = 0.0250	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	4.8347E+09	7.0682E+07	1.3406E+10
Elemental I (atoms)	1.7452E+13	2.5515E+11	4.8393E+13
Organic I (atoms)	5.3976E+11	7.8912E+09	1.4967E+12
Aerosols (kg)	1.6956E-10	2.4790E-12	4.7017E-10

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Rb-86	2.4727E-09	3.0389E-17	2.1280E+08	9.1488E+01
Sr-89	1.2003E-11	4.1314E-19	2.7955E+06	4.4410E-01
I-131	3.9352E-06	3.1742E-14	1.4592E+11	1.4560E+05
I-132	5.5749E-06	5.4009E-16	2.4640E+09	2.0627E+05
I-133	7.6828E-06	6.7821E-15	3.0709E+10	2.8426E+05
I-134	8.2609E-06	3.0967E-16	1.3917E+09	3.0565E+05
I-135	7.1970E-06	2.0493E-15	9.1418E+09	2.6629E+05
Xe-133	1.0253E-09	5.4776E-18	2.4802E+07	3.7936E+01
Xe-135	1.1622E-08	4.5509E-18	2.0301E+07	4.3000E+02
Cs-134	2.5712E-07	1.9873E-13	8.9311E+11	9.5135E+03
Cs-136	7.4128E-08	1.0114E-15	4.4786E+09	2.7427E+03
Cs-137	1.3885E-07	1.5963E-12	7.0168E+12	5.1374E+03
I-130	1.9658E-07	1.0079E-16	4.6692E+08	7.2736E+03
Kr-83m	4.4995E-09	2.1808E-19	1.5823E+06	1.6648E+02
Xe-131m	2.6451E-12	3.1580E-20	1.4517E+05	9.7870E-02

Xe-133m	7.3402E-11	1.6359E-19	7.4071E+05	2.7159E+00
Xe-135m	7.4355E-08	8.1626E-19	3.6412E+06	2.7511E+03
Cs-138	1.6378E-06	3.8705E-17	1.6890E+08	6.0597E+04
Cs-134m	6.1733E-08	7.6550E-18	3.4403E+07	2.2841E+03
Rb-88	6.3932E-07	5.3260E-18	3.6448E+07	2.3655E+04
Rb-89	8.1278E-07	5.8477E-18	3.9568E+07	3.0073E+04
Ba-137m	4.9555E-08	9.2145E-20	4.0504E+05	1.8336E+03
Br-82	2.7766E-08	2.5647E-17	1.8835E+08	1.0274E+03
Br-83	4.7525E-07	3.0083E-17	2.1827E+08	1.7584E+04
Br-84	8.0985E-07	1.1505E-17	8.2482E+07	2.9964E+04

Control Room Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.1212E+07	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.8487E+11	0.0000E+00	0.0000E+00
Organic I (atoms)	5.7175E+09	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7961E-12	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Rb-86	4.1899E-03	5.1493E-11	3.6058E+14	1.5503E+08
Sr-89	2.0338E-05	7.0006E-13	4.7369E+12	7.5251E+05
I-131	6.6682E+00	5.3787E-08	2.4726E+17	2.4672E+11
I-132	9.4467E+00	9.1518E-10	4.1753E+15	3.4953E+11
I-133	1.3018E+01	1.1492E-08	5.2036E+16	4.8168E+11
I-134	1.3998E+01	5.2472E-10	2.3582E+15	5.1792E+11
I-135	1.2195E+01	3.4726E-09	1.5491E+16	4.5122E+11

Xe-133	1.7374E-03	9.2816E-12	4.2027E+13	6.4282E+07
Xe-135	1.9693E-02	7.7114E-12	3.4400E+13	7.2864E+08
Cs-134	4.3569E-01	3.3674E-07	1.5134E+18	1.6120E+10
Cs-136	1.2561E-01	1.7138E-09	7.5889E+15	4.6475E+09
Cs-137	2.3528E-01	2.7049E-06	1.1890E+19	8.7052E+09
I-130	3.3311E-01	1.7079E-10	7.9119E+14	1.2325E+10
Kr-83m	7.6243E-03	3.6954E-13	2.6812E+12	2.8210E+08
Xe-131m	4.4821E-06	5.3511E-14	2.4599E+11	1.6584E+05
Xe-133m	1.2438E-04	2.7720E-13	1.2551E+12	4.6020E+06
Xe-135m	1.2599E-01	1.3831E-12	6.1700E+12	4.6618E+09
Cs-138	2.7752E+00	6.5585E-11	2.8620E+14	1.0268E+11
Cs-134m	1.0461E-01	1.2971E-11	5.8295E+13	3.8704E+09
Rb-88	1.0833E+00	9.0248E-12	6.1760E+13	4.0083E+10
Rb-89	1.3772E+00	9.9088E-12	6.7048E+13	5.0958E+10
Ba-137m	8.3971E-02	1.5614E-13	6.8634E+11	3.1069E+09
Br-82	4.7050E-02	4.3459E-11	3.1916E+14	1.7408E+09
Br-83	8.0531E-01	5.0976E-11	3.6986E+14	2.9796E+10
Br-84	1.3723E+00	1.9495E-11	1.3976E+14	5.0774E+10

SGs Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	8.6778E+13	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.1325E+17	0.0000E+00	0.0000E+00
Organic I (atoms)	9.6882E+15	0.0000E+00	0.0000E+00
Aerosols (kg)	3.0435E-06	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 0.3056

EAB Doses:

Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.1316E-04	4.3364E-02	3.2693E-04	1.7044E-03
Accumulated dose (rem)	2.1474E-04	4.3657E-02	3.2938E-04	1.7160E-03

LPZ Doses:

Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.6338E-05	5.3581E-03	4.0396E-05	2.1059E-04
Accumulated dose (rem)	2.6534E-05	5.3943E-03	4.0699E-05	2.1204E-04

Control Room Doses:

Time (h) = 0.3056	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.5353E-05	1.7670E-01	1.3151E-03	6.1008E-03
Accumulated dose (rem)	2.5364E-05	1.7677E-01	1.3157E-03	6.1034E-03

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Rb-86	2.4201E+02	2.9743E-06	2.0828E+19	8.9545E+12
Sr-89	1.0089E+01	3.4727E-07	2.3498E+18	3.7329E+11
I-131	3.8494E+05	3.1050E-03	1.4274E+22	1.4243E+16
I-132	5.0163E+05	4.8598E-05	2.2171E+20	1.8560E+16
I-133	7.4529E+05	6.5791E-04	2.9790E+21	2.7576E+16
I-134	6.4797E+05	2.4290E-05	1.0916E+20	2.3975E+16
I-135	6.8429E+05	1.9485E-04	8.6920E+20	2.5319E+16
Xe-133	1.2227E+03	6.5323E-06	2.9578E+19	4.5241E+13
Xe-135	1.4309E+04	5.6033E-06	2.4995E+19	5.2944E+14
Cs-134	2.5177E+04	1.9459E-02	8.7451E+22	9.3154E+14
Cs-136	7.2540E+03	9.8976E-05	4.3827E+20	2.6840E+14
Cs-137	1.3596E+04	1.5631E-01	6.8708E+23	5.0304E+14
I-130	1.8949E+04	9.7156E-06	4.5006E+19	7.0110E+14
Kr-83m	4.9152E+03	2.3823E-07	1.7285E+18	1.8186E+14
Xe-131m	3.1688E+00	3.7832E-08	1.7391E+17	1.1725E+11
Xe-133m	8.7438E+01	1.9487E-07	8.8234E+17	3.2352E+12
Xe-135m	6.1893E+04	6.7946E-07	3.0309E+18	2.2901E+15
Cs-138	1.1162E+05	2.6379E-06	1.1511E+19	4.1300E+15
Cs-134m	5.6527E+03	7.0095E-07	3.1502E+18	2.0915E+14
Rb-88	3.2502E+04	2.7076E-07	1.8529E+18	1.2026E+15
Rb-89	3.6937E+04	2.6575E-07	1.7982E+18	1.3667E+15
Ba-137m	1.4824E+04	2.7564E-08	1.2116E+17	5.4848E+14
Br-82	2.7039E+03	2.4975E-06	1.8342E+19	1.0004E+14
Br-83	4.2899E+04	2.7155E-06	1.9703E+19	1.5873E+15
Br-84	5.4944E+04	7.8055E-07	5.5960E+18	2.0329E+15

PCS Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.0389E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.7985E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	5.5625E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7587E-01	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Rb-86	9.6689E-05	1.1883E-12	8.3210E+12	3.5775E+06
Sr-89	4.0307E-06	1.3874E-13	9.3878E+11	1.4914E+05
I-131	1.5379E-01	1.2405E-09	5.7027E+15	5.6903E+09
I-132	2.0041E-01	1.9416E-11	8.8578E+13	7.4152E+09
I-133	2.9776E-01	2.6285E-10	1.1902E+15	1.1017E+10
I-134	2.5887E-01	9.7041E-12	4.3612E+13	9.5784E+09
I-135	2.7338E-01	7.7846E-11	3.4726E+14	1.0115E+10
Xe-133	4.8850E-04	2.6098E-12	1.1817E+13	1.8074E+07
Xe-135	5.7168E-03	2.2386E-12	9.9861E+12	2.1152E+08
Cs-134	1.0059E-02	7.7742E-09	3.4938E+16	3.7217E+08
Cs-136	2.8981E-03	3.9542E-11	1.7510E+14	1.0723E+08
Cs-137	5.4317E-03	6.2447E-08	2.7450E+17	2.0097E+08
I-130	7.5703E-03	3.8815E-12	1.7981E+13	2.8010E+08
Kr-83m	1.9637E-03	9.5178E-14	6.9057E+11	7.2658E+07
Xe-131m	1.2660E-06	1.5114E-14	6.9482E+10	4.6842E+04
Xe-133m	3.4933E-05	7.7853E-14	3.5251E+11	1.2925E+06

Xe-135m	2.4727E-02	2.7146E-13	1.2109E+12	9.1492E+08
Cs-138	4.4595E-02	1.0539E-12	4.5990E+12	1.6500E+09
Cs-134m	2.2584E-03	2.8004E-13	1.2586E+12	8.3560E+07
Rb-88	1.2985E-02	1.0817E-13	7.4027E+11	4.8044E+08
Rb-89	1.4757E-02	1.0617E-13	7.1840E+11	5.4601E+08
Ba-137m	5.9224E-03	1.1012E-14	4.8407E+10	2.1913E+08
Br-82	1.0803E-03	9.9780E-13	7.3279E+12	3.9970E+07
Br-83	1.7139E-02	1.0849E-12	7.8716E+12	6.3414E+08
Br-84	2.1951E-02	3.1185E-13	2.2357E+12	8.1219E+08

Environment Transport Group Inventory:

Time (h) = 0.3056	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	8.6924E+11	1.2073E+10	2.4126E+13
Elemental I (atoms)	2.5889E+14	3.5956E+12	7.1855E+15
Organic I (atoms)	8.0068E+12	1.1120E+11	2.2223E+14
Aerosols (kg)	2.5315E-09	3.5160E-11	7.0264E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Rb-86	5.7182E-07	7.0276E-15	4.9210E+10	2.1157E+04
Sr-89	2.3838E-08	8.2051E-16	5.5519E+09	8.8199E+02
I-131	9.0953E-04	7.3364E-12	3.3726E+13	3.3652E+07
I-132	1.1852E-03	1.1482E-13	5.2385E+11	4.3853E+07
I-133	1.7609E-03	1.5545E-12	7.0386E+12	6.5154E+07
I-134	1.5310E-03	5.7390E-14	2.5792E+11	5.6646E+07

I-135	1.6168E-03	4.6038E-13	2.0537E+12	5.9821E+07
Xe-133	2.8890E-06	1.5434E-14	6.9884E+10	1.0689E+05
Xe-135	3.3809E-05	1.3239E-14	5.9058E+10	1.2509E+06
Cs-134	5.9486E-05	4.5977E-11	2.0663E+14	2.2010E+06
Cs-136	1.7139E-05	2.3385E-13	1.0355E+12	6.3416E+05
Cs-137	3.2123E-05	3.6931E-10	1.6234E+15	1.1886E+06
I-130	4.4771E-05	2.2955E-14	1.0634E+11	1.6565E+06
Kr-83m	1.1613E-05	5.6288E-16	4.0840E+09	4.2970E+05
Xe-131m	7.4871E-09	8.9386E-17	4.1091E+08	2.7702E+02
Xe-133m	2.0659E-07	4.6042E-16	2.0848E+09	7.6440E+03
Xe-135m	1.4624E-04	1.6054E-15	7.1613E+09	5.4108E+06
Cs-138	2.6373E-04	6.2327E-15	2.7199E+10	9.7581E+06
Cs-134m	1.3356E-05	1.6562E-15	7.4431E+09	4.9417E+05
Rb-88	7.6793E-05	6.3973E-16	4.3779E+09	2.8413E+06
Rb-89	8.7272E-05	6.2789E-16	4.2486E+09	3.2291E+06
Ba-137m	3.5025E-05	6.5126E-17	2.8628E+08	1.2959E+06
Br-82	6.3886E-06	5.9010E-15	4.3337E+10	2.3638E+05
Br-83	1.0136E-04	6.4161E-15	4.6553E+10	3.7503E+06
Br-84	1.2982E-04	1.8442E-15	1.3222E+10	4.8033E+06

Control Room Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.4268E+11	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.2495E+13	0.0000E+00	0.0000E+00
Organic I (atoms)	1.3143E+12	0.0000E+00	0.0000E+00
Aerosols (kg)	4.1554E-10	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3056	Ci	kg	Atoms	Bq
Rb-86	5.1188E-02	6.2910E-10	4.4053E+15	1.8940E+09
Sr-89	2.1339E-03	7.3451E-11	4.9700E+14	7.8955E+07
I-131	8.1420E+01	6.5674E-07	3.0191E+18	3.0125E+12
I-132	1.0610E+02	1.0279E-08	4.6895E+16	3.9257E+12
I-133	1.5764E+02	1.3916E-07	6.3008E+17	5.8325E+12
I-134	1.3705E+02	5.1375E-09	2.3089E+16	5.0709E+12
I-135	1.4473E+02	4.1213E-08	1.8384E+17	5.3551E+12
Xe-133	2.5862E-01	1.3816E-09	6.2560E+15	9.5689E+09
Xe-135	3.0265E+00	1.1852E-09	5.2868E+15	1.1198E+11
Cs-134	5.3251E+00	4.1158E-06	1.8497E+19	1.9703E+11
Cs-136	1.5343E+00	2.0934E-08	9.2698E+16	5.6769E+10
Cs-137	2.8756E+00	3.3060E-05	1.4532E+20	1.0640E+11
I-130	4.0078E+00	2.0549E-09	9.5193E+15	1.4829E+11
Kr-83m	1.0396E+00	5.0389E-11	3.6560E+14	3.8466E+10
Xe-131m	6.7024E-04	8.0018E-12	3.6784E+13	2.4799E+07
Xe-133m	1.8494E-02	4.1216E-11	1.8662E+14	6.8428E+08
Xe-135m	1.3091E+01	1.4371E-10	6.4108E+14	4.8437E+11
Cs-138	2.3609E+01	5.5794E-10	2.4348E+15	8.7353E+11
Cs-134m	1.1956E+00	1.4826E-10	6.6629E+14	4.4238E+10
Rb-88	6.8744E+00	5.7268E-11	3.9191E+14	2.5435E+11
Rb-89	7.8125E+00	5.6208E-11	3.8033E+14	2.8906E+11
Ba-137m	3.1354E+00	5.8300E-12	2.5627E+13	1.1601E+11
Br-82	5.7190E-01	5.2825E-10	3.8795E+15	2.1160E+10
Br-83	9.0736E+00	5.7436E-10	4.1673E+15	3.3572E+11
Br-84	1.1621E+01	1.6510E-10	1.1836E+15	4.2998E+11

SGs Transport Group Inventory:

Time (h) = 0.3056	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.2773E+16	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.8041E+18	0.0000E+00	0.0000E+00
Organic I (atoms)	1.1765E+17	0.0000E+00	0.0000E+00
Aerosols (kg)	3.7198E-05	0.0000E+00	0.0000E+00

Time (h) = 0.3056	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.3056	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 0.3333

EAB Doses:

Time (h) = 0.3333	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.7671E-05	3.8098E-03	2.6988E-05	1.4860E-04
Accumulated dose (rem)	2.3241E-04	4.7467E-02	3.5637E-04	1.8646E-03

LPZ Doses:

Time (h) = 0.3333	Whole Body	Thyroid	Skin	TEDE

Delta dose (rem)	2.1835E-06	4.7075E-04	3.3347E-06	1.8361E-05
Accumulated dose (rem)	2.8718E-05	5.8651E-03	4.4033E-05	2.3040E-04

Control Room Doses:

Time (h) = 0.3333	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	6.5736E-06	4.7977E-02	3.3987E-04	1.6553E-03
Accumulated dose (rem)	3.1938E-05	2.2475E-01	1.6556E-03	7.7587E-03

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Rb-86	2.4200E+02	2.9741E-06	2.0826E+19	8.9539E+12
Sr-89	1.0653E+01	3.6668E-07	2.4811E+18	3.9416E+11
I-131	3.8490E+05	3.1047E-03	1.4272E+22	1.4241E+16
I-132	4.9745E+05	4.8192E-05	2.1986E+20	1.8405E+16
I-133	7.4459E+05	6.5729E-04	2.9762E+21	2.7550E+16
I-134	6.3390E+05	2.3762E-05	1.0679E+20	2.3454E+16
I-135	6.8229E+05	1.9428E-04	8.6666E+20	2.5245E+16
Xe-133	1.3330E+03	7.1215E-06	3.2246E+19	4.9322E+13
Xe-135	1.5631E+04	6.1209E-06	2.7304E+19	5.7835E+14
Cs-134	2.5176E+04	1.9459E-02	8.7450E+22	9.3152E+14
Cs-136	7.2534E+03	9.8968E-05	4.3823E+20	2.6838E+14
Cs-137	1.3595E+04	1.5630E-01	6.8706E+23	5.0303E+14
I-130	1.8919E+04	9.7003E-06	4.4936E+19	7.0000E+14
Kr-83m	5.3116E+03	2.5744E-07	1.8679E+18	1.9653E+14
Xe-131m	3.4562E+00	4.1263E-08	1.8969E+17	1.2788E+11
Xe-133m	9.5315E+01	2.1242E-07	9.6183E+17	3.5267E+12
Xe-135m	6.5187E+04	7.1562E-07	3.1922E+18	2.4119E+15
Cs-138	1.0769E+05	2.5450E-06	1.1106E+19	3.9845E+15
Cs-134m	5.6153E+03	6.9631E-07	3.1293E+18	2.0776E+14
Rb-88	3.0461E+04	2.5376E-07	1.7366E+18	1.1271E+15
Rb-89	3.4236E+04	2.4632E-07	1.6667E+18	1.2667E+15
Ba-137m	1.4657E+04	2.7253E-08	1.1980E+17	5.4230E+14
Br-82	2.7024E+03	2.4961E-06	1.8332E+19	9.9988E+13
Br-83	4.2555E+04	2.6937E-06	1.9544E+19	1.5745E+15
Br-84	5.2985E+04	7.5273E-07	5.3964E+18	1.9604E+15

PCS Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.5762E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.7974E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	5.5590E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7587E-01	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Rb-86	1.0514E-04	1.2922E-12	9.0483E+12	3.8902E+06
Sr-89	4.6283E-06	1.5931E-13	1.0780E+12	1.7125E+05
I-131	1.6722E-01	1.3489E-09	6.2008E+15	6.1873E+09
I-132	2.1612E-01	2.0938E-11	9.5522E+13	7.9965E+09
I-133	3.2350E-01	2.8557E-10	1.2930E+15	1.1969E+10
I-134	2.7540E-01	1.0324E-11	4.6396E+13	1.0190E+10
I-135	2.9643E-01	8.4408E-11	3.7653E+14	1.0968E+10

Xe-133	5.7915E-04	3.0940E-12	1.4010E+13	2.1428E+07
Xe-135	6.7912E-03	2.6593E-12	1.1863E+13	2.5127E+08
Cs-134	1.0938E-02	8.4540E-09	3.7994E+16	4.0471E+08
Cs-136	3.1513E-03	4.2998E-11	1.9040E+14	1.1660E+08
Cs-137	5.9067E-03	6.7908E-08	2.9850E+17	2.1855E+08
I-130	8.2195E-03	4.2144E-12	1.9523E+13	3.0412E+08
Kr-83m	2.3077E-03	1.1185E-13	8.1153E+11	8.5384E+07
Xe-131m	1.5016E-06	1.7927E-14	8.2412E+10	5.5559E+04
Xe-133m	4.1411E-05	9.2289E-14	4.1788E+11	1.5322E+06
Xe-135m	2.8321E-02	3.1091E-13	1.3869E+12	1.0479E+09
Cs-138	4.6787E-02	1.1057E-12	4.8252E+12	1.7311E+09
Cs-134m	2.4396E-03	3.0252E-13	1.3596E+12	9.0266E+07
Rb-88	1.3234E-02	1.1025E-13	7.5447E+11	4.8966E+08
Rb-89	1.4874E-02	1.0702E-13	7.2411E+11	5.5035E+08
Ba-137m	6.3679E-03	1.1841E-14	5.2048E+10	2.3561E+08
Br-82	1.1741E-03	1.0845E-12	7.9644E+12	4.3441E+07
Br-83	1.8488E-02	1.1703E-12	8.4913E+12	6.8407E+08
Br-84	2.3020E-02	3.2703E-13	2.3446E+12	8.5174E+08

Environment Transport Group Inventory:

Time (h) = 0.3333	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	1.1263E+12	2.1660E+10	2.8571E+13
Elemental I (atoms)	3.0783E+14	5.9200E+12	7.8091E+15
Organic I (atoms)	9.5206E+12	1.8309E+11	2.4152E+14
Aerosols (kg)	3.0120E-09	5.7924E-11	7.6408E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Rb-86	5.9750E-07	7.3433E-15	5.1421E+10	2.2108E+04
Sr-89	2.6303E-08	9.0535E-16	6.1260E+09	9.7319E+02
I-131	9.5033E-04	7.6655E-12	3.5239E+13	3.5162E+07
I-132	1.2282E-03	1.1899E-13	5.4285E+11	4.5444E+07
I-133	1.8384E-03	1.6229E-12	7.3483E+12	6.8021E+07
I-134	1.5651E-03	5.8670E-14	2.6367E+11	5.7909E+07
I-135	1.6846E-03	4.7969E-13	2.1398E+12	6.2330E+07
Xe-133	3.2913E-06	1.7583E-14	7.9616E+10	1.2178E+05
Xe-135	3.8594E-05	1.5113E-14	6.7416E+10	1.4280E+06
Cs-134	6.2161E-05	4.8044E-11	2.1592E+14	2.2999E+06
Cs-136	1.7909E-05	2.4435E-13	1.0820E+12	6.6263E+05
Cs-137	3.3568E-05	3.8592E-10	1.6964E+15	1.2420E+06
I-130	4.6711E-05	2.3950E-14	1.1095E+11	1.7283E+06
Kr-83m	1.3114E-05	6.3563E-16	4.6119E+09	4.8523E+05
Xe-131m	8.5335E-09	1.0188E-16	4.6834E+08	3.1574E+02
Xe-133m	2.3534E-07	5.2448E-16	2.3748E+09	8.7074E+03
Xe-135m	1.6095E-04	1.7669E-15	7.8818E+09	5.9551E+06
Cs-138	2.6589E-04	6.2837E-15	2.7421E+10	9.8380E+06
Cs-134m	1.3864E-05	1.7192E-15	7.7263E+09	5.1298E+05
Rb-88	7.5209E-05	6.2654E-16	4.2876E+09	2.7827E+06
Rb-89	8.4530E-05	6.0817E-16	4.1151E+09	3.1276E+06
Ba-137m	3.6188E-05	6.7289E-17	2.9579E+08	1.3390E+06
Br-82	6.6723E-06	6.1630E-15	4.5261E+10	2.4687E+05
Br-83	1.0507E-04	6.6509E-15	4.8256E+10	3.8876E+06
Br-84	1.3082E-04	1.8585E-15	1.3324E+10	4.8404E+06

Control Room Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.6237E+11	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.4379E+13	0.0000E+00	0.0000E+00
Organic I (atoms)	1.3725E+12	0.0000E+00	0.0000E+00
Aerosols (kg)	4.3422E-10	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.3333	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3333	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.3333	Ci	kg	Atoms	Bq
Rb-86	5.5834E-02	6.8620E-10	4.8051E+15	2.0659E+09
Sr-89	2.4579E-03	8.4602E-11	5.7245E+14	9.0941E+07
I-131	8.8805E+01	7.1631E-07	3.2929E+18	3.2858E+12
I-132	1.1477E+02	1.1119E-08	5.0727E+16	4.2465E+12
I-133	1.7179E+02	1.5165E-07	6.8667E+17	6.3563E+12
I-134	1.4625E+02	5.4824E-09	2.4639E+16	5.4114E+12
I-135	1.5742E+02	4.4825E-08	1.9996E+17	5.8245E+12
Xe-133	3.0756E-01	1.6431E-09	7.4398E+15	1.1380E+10
Xe-135	3.6065E+00	1.4122E-09	6.2997E+15	1.3344E+11
Cs-134	5.8087E+00	4.4895E-06	2.0177E+19	2.1492E+11
Cs-136	1.6735E+00	2.2834E-08	1.0111E+17	6.1920E+10
Cs-137	3.1368E+00	3.6062E-05	1.5852E+20	1.1606E+11
I-130	4.3650E+00	2.2381E-09	1.0368E+16	1.6150E+11
Kr-83m	1.2255E+00	5.9398E-11	4.3096E+14	4.5343E+10
Xe-131m	7.9743E-04	9.5202E-12	4.3765E+13	2.9505E+07
Xe-133m	2.1991E-02	4.9010E-11	2.2192E+14	8.1368E+08
Xe-135m	1.5040E+01	1.6511E-10	7.3652E+14	5.5648E+11
Cs-138	2.4846E+01	5.8719E-10	2.5624E+15	9.1932E+11
Cs-134m	1.2956E+00	1.6065E-10	7.2200E+14	4.7936E+10
Rb-88	7.0280E+00	5.8548E-11	4.0066E+14	2.6004E+11
Rb-89	7.8990E+00	5.6831E-11	3.8454E+14	2.9226E+11
Ba-137m	3.3817E+00	6.2879E-12	2.7640E+13	1.2512E+11
Br-82	6.2350E-01	5.7591E-10	4.2295E+15	2.3069E+10
Br-83	9.8183E+00	6.2150E-10	4.5093E+15	3.6328E+11
Br-84	1.2225E+01	1.7367E-10	1.2451E+15	4.5232E+11

SGs Transport Group Inventory:

Time (h) = 0.3333	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.5173E+16	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.1470E+18	0.0000E+00	0.0000E+00
Organic I (atoms)	1.2826E+17	0.0000E+00	0.0000E+00
Aerosols (kg)	4.0576E-05	0.0000E+00	0.0000E+00

Time (h) = 0.3333	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3333	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

	Pathway Filter
Time (h) = 0.3333	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 0.5000

EAB Doses:

Time (h) = 0.5000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.3278E-04	2.9955E-02	2.0225E-04	1.1617E-03
Accumulated dose (rem)	3.6519E-04	7.7421E-02	5.5862E-04	3.0263E-03

LPZ Doses:

Time (h) = 0.5000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.6406E-05	3.7013E-03	2.4991E-05	1.4354E-04
Accumulated dose (rem)	4.5124E-05	9.5663E-03	6.9024E-05	3.7394E-04

Control Room Doses:

Time (h) = 0.5000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.7070E-05	2.0494E-01	1.3966E-03	7.0672E-03
Accumulated dose (rem)	5.9008E-05	4.2969E-01	3.0522E-03	1.4826E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	2.4191E+02	2.9730E-06	2.0819E+19	8.9506E+12
Sr-89	1.3271E+01	4.5681E-07	3.0910E+18	4.9104E+11
I-131	3.8462E+05	3.1024E-03	1.4262E+22	1.4231E+16
I-132	4.7302E+05	4.5826E-05	2.0907E+20	1.7502E+16
I-133	7.4038E+05	6.5358E-04	2.9593E+21	2.7394E+16
I-134	5.5555E+05	2.0825E-05	9.3592E+19	2.0556E+16
I-135	6.7038E+05	1.9089E-04	8.5154E+20	2.4804E+16
Xe-133	1.9932E+03	1.0649E-05	4.8216E+19	7.3749E+13
Xe-135	2.3557E+04	9.2245E-06	4.1149E+19	8.7160E+14
Cs-134	2.5173E+04	1.9456E-02	8.7439E+22	9.3140E+14
Cs-136	7.2499E+03	9.8920E-05	4.3802E+20	2.6825E+14
Cs-137	1.3594E+04	1.5628E-01	6.8698E+23	5.0297E+14
I-130	1.8741E+04	9.6089E-06	4.4512E+19	6.9340E+14
Kr-83m	7.5364E+03	3.6527E-07	2.6503E+18	2.7885E+14
Xe-131m	5.1819E+00	6.1865E-08	2.8440E+17	1.9173E+11
Xe-133m	1.4242E+02	3.1741E-07	1.4372E+18	5.2697E+12
Xe-135m	8.0379E+04	8.8240E-07	3.9362E+18	2.9740E+15
Cs-138	8.6820E+04	2.0518E-06	8.9537E+18	3.2123E+15
Cs-134m	5.3953E+03	6.6903E-07	3.0067E+18	1.9963E+14
Rb-88	2.0632E+04	1.7188E-07	1.1762E+18	7.6338E+14
Rb-89	2.1694E+04	1.5608E-07	1.0561E+18	8.0269E+14
Ba-137m	1.5030E+04	2.7948E-08	1.2285E+17	5.5613E+14
Br-82	2.6932E+03	2.4877E-06	1.8270E+19	9.9650E+13
Br-83	4.0542E+04	2.5663E-06	1.8620E+19	1.5000E+15
Br-84	4.2601E+04	6.0521E-07	4.3389E+18	1.5762E+15

PCS Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	9.7673E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.7908E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	5.5384E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7585E-01	0.0000E+00	0.0000E+00

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	1.7168E-04	2.1099E-12	1.4775E+13	6.3522E+06
Sr-89	9.4185E-06	3.2419E-13	2.1936E+12	3.4849E+05
I-131	2.7297E-01	2.2018E-09	1.0122E+16	1.0100E+10
I-132	3.3570E-01	3.2522E-11	1.4837E+14	1.2421E+10
I-133	5.2544E-01	4.6384E-10	2.1002E+15	1.9441E+10
I-134	3.9427E-01	1.4780E-11	6.6422E+13	1.4588E+10
I-135	4.7577E-01	1.3547E-10	6.0433E+14	1.7603E+10
Xe-133	1.4148E-03	7.5586E-12	3.4225E+13	5.2349E+07
Xe-135	1.6721E-02	6.5478E-12	2.9209E+13	6.1869E+08
Cs-134	1.7865E-02	1.3808E-08	6.2055E+16	6.6101E+08
Cs-136	5.1452E-03	7.0203E-11	3.1086E+14	1.9037E+08
Cs-137	9.6475E-03	1.1091E-07	4.8755E+17	3.5696E+08
I-130	1.3300E-02	6.8194E-12	3.1590E+13	4.9210E+08
Kr-83m	5.3495E-03	2.5928E-13	1.8812E+12	1.9793E+08
Xe-131m	3.6783E-06	4.3914E-14	2.0187E+11	1.3610E+05
Xe-133m	1.0110E-04	2.2531E-13	1.0202E+12	3.7406E+06
Xe-135m	5.7055E-02	6.2634E-13	2.7940E+12	2.1110E+09
Cs-138	6.1616E-02	1.4561E-12	6.3544E+12	2.2798E+09
Cs-134m	3.8290E-03	4.7481E-13	2.1338E+12	1.4167E+08
Rb-88	1.4642E-02	1.2198E-13	8.3476E+11	5.4177E+08
Rb-89	1.5396E-02	1.1077E-13	7.4953E+11	5.6967E+08
Ba-137m	1.0667E-02	1.9834E-14	8.7187E+10	3.9468E+08
Br-82	1.9114E-03	1.7655E-12	1.2966E+13	7.0721E+07
Br-83	2.8772E-02	1.8213E-12	1.3214E+13	1.0646E+09
Br-84	3.0234E-02	4.2951E-13	3.0793E+12	1.1186E+09

Environment Transport Group Inventory:

Time (h) = 0.5000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	3.7911E+12	5.2654E+10	6.9331E+13
Elemental I (atoms)	6.9454E+14	9.6464E+12	1.2709E+16
Organic I (atoms)	2.1481E+13	2.9834E+11	3.9306E+14
Aerosols (kg)	6.8202E-09	9.4724E-11	1.2480E-07

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	3.2298E-08	3.9694E-16	2.7796E+09	1.1950E+03
Sr-89	1.7719E-09	6.0989E-17	4.1268E+08	6.5560E+01
I-131	5.1352E-05	4.1422E-13	1.9042E+12	1.9000E+06
I-132	6.3154E-05	6.1183E-15	2.7913E+10	2.3367E+06
I-133	9.8850E-05	8.7261E-14	3.9511E+11	3.6574E+06
I-134	7.4174E-05	2.7805E-15	1.2496E+10	2.7444E+06
I-135	8.9505E-05	2.5487E-14	1.1369E+11	3.3117E+06
Cs-134	3.3609E-06	2.5977E-12	1.1674E+13	1.2435E+05
Cs-136	9.6796E-07	1.3207E-14	5.8481E+10	3.5814E+04
Cs-137	1.8150E-06	2.0866E-11	9.1721E+13	6.7154E+04
I-130	2.5021E-06	1.2829E-15	5.9430E+09	9.2578E+04
Cs-138	1.1592E-05	2.7394E-16	1.1954E+09	4.2889E+05
Cs-134m	7.2034E-07	8.9324E-17	4.0144E+08	2.6653E+04
Rb-88	2.7546E-06	2.2948E-17	1.5704E+08	1.0192E+05
Rb-89	2.8965E-06	2.0839E-17	1.4101E+08	1.0717E+05
Ba-137m	2.0068E-06	3.7314E-18	1.6402E+07	7.4250E+04
Br-82	3.5958E-07	3.3214E-16	2.4392E+09	1.3305E+04
Br-83	5.4128E-06	3.4263E-16	2.4860E+09	2.0027E+05
Br-84	5.6878E-06	8.0803E-17	5.7929E+08	2.1045E+05

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter

Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	2.3909E+12
Organic I (atoms)	7.3945E+10
Aerosols (kg)	2.3478E-11

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	2.7609E-07	3.3932E-15	2.3760E+10	1.0215E+04
Sr-89	1.5147E-08	5.2136E-16	3.5277E+09	5.6042E+02
I-131	4.3898E-04	3.5408E-12	1.6277E+13	1.6242E+07
I-132	5.3986E-04	5.2301E-14	2.3861E+11	1.9975E+07
I-133	8.4500E-04	7.4593E-13	3.3775E+12	3.1265E+07
I-134	6.3406E-04	2.3768E-14	1.0682E+11	2.3460E+07
I-135	7.6512E-04	2.1787E-13	9.7187E+11	2.8309E+07
Xe-133	3.6111E-06	1.9292E-14	8.7353E+10	1.3361E+05
Xe-135	4.2650E-05	1.6701E-14	7.4500E+10	1.5780E+06
Cs-134	2.8730E-05	2.2206E-11	9.9795E+13	1.0630E+06
Cs-136	8.2744E-06	1.1290E-13	4.9992E+11	3.0615E+05
Cs-137	1.5515E-05	1.7837E-10	7.8406E+14	5.7405E+05
I-130	2.1389E-05	1.0967E-14	5.0802E+10	7.9139E+05
Kr-83m	1.3657E-05	6.6195E-16	4.8028E+09	5.0532E+05
Xe-131m	9.3887E-09	1.1209E-16	5.1528E+08	3.4738E+02
Xe-133m	2.5804E-07	5.7507E-16	2.6039E+09	9.5473E+03
Xe-135m	1.4660E-04	1.6094E-15	7.1791E+09	5.4242E+06
Cs-138	9.9088E-05	2.3417E-15	1.0219E+10	3.6663E+06
Cs-134m	6.1577E-06	7.6357E-16	3.4316E+09	2.2783E+05
Rb-88	2.3547E-05	1.9617E-16	1.3424E+09	8.7126E+05
Rb-89	2.4760E-05	1.7814E-16	1.2054E+09	9.1612E+05
Ba-137m	1.7154E-05	3.1897E-17	1.4021E+08	6.3471E+05
Br-82	3.0738E-06	2.8392E-15	2.0851E+10	1.1373E+05
Br-83	4.6270E-05	2.9289E-15	2.1251E+10	1.7120E+06
Br-84	4.8621E-05	6.9073E-16	4.9520E+09	1.7990E+06

Control Room Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.7695E+11	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.0438E+13	0.0000E+00	0.0000E+00
Organic I (atoms)	6.3210E+11	0.0000E+00	0.0000E+00
Aerosols (kg)	2.0069E-10	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 0.5000	Ci	kg	Atoms	Bq

Rb-86	1.6209E-07	1.9921E-15	1.3950E+10	5.9975E+03
Sr-89	8.8926E-09	3.0609E-16	2.0711E+09	3.2903E+02
I-131	2.5772E-04	2.0788E-12	9.5565E+12	9.5358E+06
I-132	3.1695E-04	3.0706E-14	1.4009E+11	1.1727E+07
I-133	4.9610E-04	4.3794E-13	1.9830E+12	1.8356E+07
I-134	3.7226E-04	1.3954E-14	6.2713E+10	1.3774E+07
I-135	4.4920E-04	1.2791E-13	5.7059E+11	1.6621E+07
Cs-134	1.6868E-05	1.3037E-11	5.8590E+13	6.2410E+05
Cs-136	4.8579E-06	6.6283E-14	2.9350E+11	1.7974E+05
Cs-137	9.1088E-06	1.0472E-10	4.6032E+14	3.3703E+05
I-130	1.2557E-05	6.4386E-15	2.9826E+10	4.6463E+05
Cs-138	5.8175E-05	1.3748E-15	5.9996E+09	2.1525E+06
Cs-134m	3.6152E-06	4.4830E-16	2.0147E+09	1.3376E+05
Rb-88	1.3825E-05	1.1517E-16	7.8815E+08	5.1152E+05
Rb-89	1.4537E-05	1.0459E-16	7.0768E+08	5.3786E+05
Ba-137m	1.0071E-05	1.8727E-17	8.2319E+07	3.7264E+05
Br-82	1.8047E-06	1.6669E-15	1.2242E+10	6.6772E+04
Br-83	2.7166E-05	1.7196E-15	1.2477E+10	1.0051E+06
Br-84	2.8546E-05	4.0553E-16	2.9073E+09	1.0562E+06

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	1.1999E+13
Organic I (atoms)	0.0000E+00	3.7111E+11
Aerosols (kg)	0.0000E+00	1.1783E-10

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	3.2298E-08	3.9694E-16	2.7796E+09	1.1950E+03
Sr-89	1.7719E-09	6.0989E-17	4.1268E+08	6.5560E+01
I-131	5.1352E-05	4.1422E-13	1.9042E+12	1.9000E+06
I-132	6.3154E-05	6.1183E-15	2.7913E+10	2.3367E+06
I-133	9.8850E-05	8.7261E-14	3.9511E+11	3.6574E+06
I-134	7.4174E-05	2.7805E-15	1.2496E+10	2.7444E+06
I-135	8.9505E-05	2.5487E-14	1.1369E+11	3.3117E+06
Cs-134	3.3609E-06	2.5977E-12	1.1674E+13	1.2435E+05
Cs-136	9.6796E-07	1.3207E-14	5.8481E+10	3.5814E+04
Cs-137	1.8150E-06	2.0866E-11	9.1721E+13	6.7154E+04
I-130	2.5021E-06	1.2829E-15	5.9430E+09	9.2578E+04
Cs-138	1.1592E-05	2.7394E-16	1.1954E+09	4.2889E+05
Cs-134m	7.2034E-07	8.9324E-17	4.0144E+08	2.6653E+04
Rb-88	2.7546E-06	2.2948E-17	1.5704E+08	1.0192E+05
Rb-89	2.8965E-06	2.0839E-17	1.4101E+08	1.0717E+05
Ba-137m	2.0068E-06	3.7314E-18	1.6402E+07	7.4250E+04
Br-82	3.5958E-07	3.3214E-16	2.4392E+09	1.3305E+04
Br-83	5.4128E-06	3.4263E-16	2.4860E+09	2.0027E+05
Br-84	5.6878E-06	8.0803E-17	5.7929E+08	2.1045E+05

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	2.3909E+12
Organic I (atoms)	7.3945E+10
Aerosols (kg)	2.3478E-11

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00

Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	1.9439E-07	2.3891E-15	1.6729E+10	7.1925E+03
Sr-89	1.0664E-08	3.6708E-16	2.4838E+09	3.9459E+02
I-131	3.0908E-04	2.4931E-12	1.1461E+13	1.1436E+07
I-132	3.8011E-04	3.6824E-14	1.6800E+11	1.4064E+07
I-133	5.9495E-04	5.2520E-13	2.3781E+12	2.2013E+07
I-134	4.4643E-04	1.6735E-14	7.5209E+10	1.6518E+07
I-135	5.3871E-04	1.5340E-13	6.8428E+11	1.9932E+07
Cs-134	2.0229E-05	1.5635E-11	7.0264E+13	7.4846E+05
Cs-136	5.8259E-06	7.9490E-14	3.5198E+11	2.1556E+05
Cs-137	1.0924E-05	1.2559E-10	5.5205E+14	4.0418E+05
I-130	1.5060E-05	7.7215E-15	3.5769E+10	5.5720E+05
Cs-138	6.9767E-05	1.6488E-15	7.1950E+09	2.5814E+06
Cs-134m	4.3356E-06	5.3762E-16	2.4161E+09	1.6042E+05
Rb-88	1.6579E-05	1.3812E-16	9.4519E+08	6.1344E+05
Rb-89	1.7433E-05	1.2543E-16	8.4869E+08	6.4503E+05
Ba-137m	1.2078E-05	2.2458E-17	9.8721E+07	4.4689E+05
Br-82	2.1642E-06	1.9990E-15	1.4681E+10	8.0077E+04
Br-83	3.2578E-05	2.0622E-15	1.4963E+10	1.2054E+06
Br-84	3.4233E-05	4.8633E-16	3.4866E+09	1.2666E+06

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Rb-86	8.3724E-02	1.0290E-09	7.2053E+15	3.0978E+09
Sr-89	4.5932E-03	1.5810E-10	1.0698E+15	1.6995E+08
I-131	1.3312E+02	1.0738E-06	4.9361E+18	4.9254E+12
I-132	1.6371E+02	1.5860E-08	7.2358E+16	6.0573E+12
I-133	2.5624E+02	2.2620E-07	1.0242E+18	9.4810E+12
I-134	1.9228E+02	7.2077E-09	3.2392E+16	7.1142E+12
I-135	2.3202E+02	6.6067E-08	2.9472E+17	8.5847E+12
Xe-133	6.8985E-01	3.6855E-09	1.6687E+16	2.5524E+10
Xe-135	8.1530E+00	3.1926E-09	1.4242E+16	3.0166E+11
Cs-134	8.7124E+00	6.7338E-06	3.0263E+19	3.2236E+11
Cs-136	2.5092E+00	3.4236E-08	1.5160E+17	9.2840E+10
Cs-137	4.7048E+00	5.4090E-05	2.3776E+20	1.7408E+11
I-130	6.4861E+00	3.3256E-09	1.5406E+16	2.3999E+11
Kr-83m	2.6083E+00	1.2642E-10	9.1726E+14	9.6508E+10
Xe-131m	1.7935E-03	2.1412E-11	9.8430E+13	6.6358E+07
Xe-133m	4.9293E-02	1.0986E-10	4.9742E+14	1.8238E+09
Xe-135m	2.7819E+01	3.0540E-10	1.3623E+15	1.0293E+12
Cs-138	3.0048E+01	7.1012E-10	3.0989E+15	1.1118E+12
Cs-134m	1.8673E+00	2.3155E-10	1.0406E+15	6.9090E+10
Rb-88	7.1407E+00	5.9487E-11	4.0709E+14	2.6421E+11
Rb-89	7.5084E+00	5.4021E-11	3.6553E+14	2.7781E+11
Ba-137m	5.2020E+00	9.6727E-12	4.2519E+13	1.9247E+11
Br-82	9.3213E-01	8.6098E-10	6.3231E+15	3.4489E+10
Br-83	1.4031E+01	8.8819E-10	6.4443E+15	5.1916E+11
Br-84	1.4744E+01	2.0946E-10	1.5017E+15	5.4553E+11

SGs Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.3804E+16	0.0000E+00	0.0000E+00
Elemental I (atoms)	6.1978E+18	0.0000E+00	0.0000E+00
Organic I (atoms)	1.9168E+17	0.0000E+00	0.0000E+00
Aerosols (kg)	6.0860E-05	0.0000E+00	0.0000E+00

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 0.5000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 2.0000

EAB Doses:

Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.0805E-03	6.6046E-01	3.1524E-03	2.4699E-02
Accumulated dose (rem)	2.4457E-03	7.3788E-01	3.7110E-03	2.7725E-02

LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.5707E-04	8.1607E-02	3.8951E-04	3.0518E-03
Accumulated dose (rem)	3.0219E-04	9.1174E-02	4.5854E-04	3.4258E-03

Control Room Doses:

Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.7901E-05	2.3288E-01	1.4473E-03	8.0139E-03
Accumulated dose (rem)	8.6909E-05	6.6257E-01	4.4995E-03	2.2840E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	2.4110E+02	2.9631E-06	2.0749E+19	8.9206E+12
Sr-89	1.7698E+01	6.0919E-07	4.1220E+18	6.5484E+11
I-131	3.8216E+05	3.0826E-03	1.4171E+22	1.4140E+16
I-132	3.0068E+05	2.9129E-05	1.3289E+20	1.1125E+16
I-133	7.0355E+05	6.2106E-04	2.8121E+21	2.6031E+16
I-134	1.6951E+05	6.3544E-06	2.8557E+19	6.2720E+15
I-135	5.7222E+05	1.6294E-04	7.2684E+20	2.1172E+16
Xe-133	7.7398E+03	4.1349E-05	1.8723E+20	2.8637E+14
Xe-135	8.7584E+04	3.4297E-05	1.5299E+20	3.2406E+15
Cs-134	2.5146E+04	1.9435E-02	8.7344E+22	9.3039E+14
Cs-136	7.2185E+03	9.8491E-05	4.3612E+20	2.6708E+14
Cs-137	1.3580E+04	1.5612E-01	6.8627E+23	5.0245E+14
I-130	1.7211E+04	8.8245E-06	4.0879E+19	6.3680E+14
Kr-83m	1.8263E+04	8.8516E-07	6.4224E+18	6.7572E+14
Xe-131m	2.0614E+01	2.4611E-07	1.1314E+18	7.6273E+11
Xe-133m	5.4967E+02	1.2250E-06	5.5468E+18	2.0338E+13
Xe-135m	9.3666E+04	1.0282E-06	4.5869E+18	3.4656E+15
Cs-138	1.2496E+04	2.9532E-07	1.2887E+18	4.6236E+14
Cs-134m	3.7658E+03	4.6697E-07	2.0986E+18	1.3934E+14
Rb-88	6.1948E+02	5.1607E-09	3.5316E+16	2.2921E+13
Rb-89	3.5767E+02	2.5733E-09	1.7412E+16	1.3234E+13
Ba-137m	1.5053E+04	2.7991E-08	1.2304E+17	5.5698E+14
Br-82	2.6124E+03	2.4130E-06	1.7721E+19	9.6657E+13
Br-83	2.6213E+04	1.6593E-06	1.2039E+19	9.6988E+14

Br-84	5.9841E+03	8.5012E-08	6.0947E+17	2.2141E+14

PCS Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.5790E+20	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.7404E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	5.3827E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7566E-01	0.0000E+00	0.0000E+00

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	1.6587E-03	2.0385E-11	1.4275E+14	6.1372E+07
Sr-89	1.2176E-04	4.1911E-12	2.8359E+13	4.5051E+06
I-131	2.6292E+00	2.1207E-08	9.7491E+16	9.7280E+10
I-132	2.0686E+00	2.0040E-10	9.1429E+14	7.6538E+10
I-133	4.8402E+00	4.2728E-09	1.9347E+16	1.7909E+11
I-134	1.1662E+00	4.3717E-11	1.9647E+14	4.3150E+10
I-135	3.9367E+00	1.1210E-09	5.0005E+15	1.4566E+11
Xe-133	5.3270E-02	2.8459E-10	1.2886E+15	1.9710E+09
Xe-135	6.0281E-01	2.3605E-10	1.0530E+15	2.2304E+10
Cs-134	1.7300E-01	1.3371E-07	6.0091E+17	6.4009E+09
Cs-136	4.9662E-02	6.7760E-10	3.0004E+15	1.8375E+09
Cs-137	9.3426E-02	1.0741E-06	4.7214E+18	3.4567E+09
I-130	1.1841E-01	6.0711E-11	2.8124E+14	4.3810E+09
Kr-83m	1.2570E-01	6.0922E-12	4.4203E+13	4.6507E+09
Xe-131m	1.4188E-04	1.6939E-12	7.7869E+12	5.2496E+06
Xe-133m	3.7832E-03	8.4313E-12	3.8176E+13	1.3998E+08
Xe-135m	6.4457E-01	7.0760E-12	3.1565E+13	2.3849E+10
Cs-138	8.5972E-02	2.0317E-12	8.8662E+12	3.1809E+09
Cs-134m	2.5908E-02	3.2127E-12	1.4438E+13	9.5860E+08
Rb-88	4.2619E-03	3.5504E-14	2.4297E+11	1.5769E+08
Rb-89	2.4607E-03	1.7704E-14	1.1979E+11	9.1046E+07
Ba-137m	1.0356E-01	1.9257E-13	8.4649E+11	3.8319E+09
Br-82	1.7972E-02	1.6601E-11	1.2192E+14	6.6498E+08
Br-83	1.8034E-01	1.1416E-11	8.2827E+13	6.6726E+09
Br-84	4.1169E-02	5.8487E-13	4.1930E+12	1.5233E+09

Environment Transport Group Inventory:

Time (h) = 2.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	4.6825E+13	6.5035E+11	2.4633E+15
Elemental I (atoms)	2.2756E+15	3.1606E+13	1.1974E+17
Organic I (atoms)	7.0380E+13	9.7750E+11	3.7032E+15
Aerosols (kg)	2.2968E-08	3.1900E-10	1.2085E-06

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	7.5559E-07	9.2861E-15	6.5026E+10	2.7957E+04
Sr-89	5.5466E-08	1.9092E-15	1.2918E+10	2.0522E+03
I-131	1.1977E-03	9.6606E-12	4.4410E+13	4.4314E+07
I-132	9.4231E-04	9.1290E-14	4.1649E+11	3.4866E+07
I-133	2.2049E-03	1.9464E-12	8.8131E+12	8.1581E+07
I-134	5.3125E-04	1.9914E-14	8.9497E+10	1.9656E+07
I-135	1.7933E-03	5.1064E-13	2.2779E+12	6.6352E+07
Cs-134	7.8806E-05	6.0909E-11	2.7373E+14	2.9158E+06
Cs-136	2.2622E-05	3.0867E-13	1.3668E+12	8.3703E+05
Cs-137	4.2558E-05	4.8928E-10	2.1507E+15	1.5747E+06
I-130	5.3938E-05	2.7655E-14	1.2811E+11	1.9957E+06
Cs-138	3.9163E-05	9.2552E-16	4.0388E+09	1.4490E+06
Cs-134m	1.1802E-05	1.4635E-15	6.5770E+09	4.3667E+05
Rb-88	1.9414E-06	1.6173E-17	1.1068E+08	7.1833E+04
Rb-89	1.1209E-06	8.0646E-18	5.4569E+07	4.1474E+04
Ba-137m	4.7177E-05	8.7722E-17	3.8560E+08	1.7455E+06
Br-82	8.1870E-06	7.5621E-15	5.5536E+10	3.0292E+05
Br-83	8.2151E-05	5.2001E-15	3.7730E+10	3.0396E+06
Br-84	1.8754E-05	2.6642E-16	1.9100E+09	6.9389E+05

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	5.4544E+13
Organic I (atoms)	1.6869E+12
Aerosols (kg)	5.5051E-10

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	2.5117E-08	3.0868E-16	2.1615E+09	9.2932E+02
Sr-89	1.8438E-09	6.3463E-17	4.2942E+08	6.8219E+01
I-131	3.9812E-05	3.2113E-13	1.4763E+12	1.4731E+06
I-132	3.1324E-05	3.0346E-15	1.3845E+10	1.1590E+06
I-133	7.3293E-05	6.4700E-14	2.9296E+11	2.7119E+06
I-134	1.7659E-05	6.6198E-16	2.9750E+09	6.5340E+05
I-135	5.9612E-05	1.6974E-14	7.5720E+10	2.2056E+06
Xe-133	1.3952E-05	7.4540E-14	3.3751E+11	5.1624E+05
Xe-135	1.5503E-04	6.0709E-14	2.7081E+11	5.7362E+06
Cs-134	2.6196E-06	2.0247E-12	9.0992E+12	9.6926E+04

Cs-136	7.5200E-07	1.0260E-14	4.5434E+10	2.7824E+04
Cs-137	1.4147E-06	1.6264E-11	7.1493E+13	5.2344E+04
I-130	1.7930E-06	9.1931E-16	4.2586E+09	6.6340E+04
Kr-83m	3.3733E-05	1.6350E-15	1.1863E+10	1.2481E+06
Xe-131m	3.7370E-08	4.4615E-16	2.0510E+09	1.3827E+03
Xe-133m	9.9254E-07	2.2120E-15	1.0016E+10	3.6724E+04
Xe-135m	2.6726E-04	2.9340E-15	1.3088E+10	9.8888E+06
Cs-138	1.3018E-06	3.0765E-17	1.3426E+08	4.8167E+04
Cs-134m	3.9231E-07	4.8648E-17	2.1863E+08	1.4516E+04
Rb-88	6.4536E-08	5.3763E-19	3.6792E+06	2.3878E+03
Rb-89	3.7261E-08	2.6808E-19	1.8139E+06	1.3787E+03
Ba-137m	1.5682E-06	2.9160E-18	1.2818E+07	5.8024E+04
Br-82	2.7215E-07	2.5137E-16	1.8461E+09	1.0069E+04
Br-83	2.7308E-06	1.7286E-16	1.2542E+09	1.0104E+05
Br-84	6.2340E-07	8.8563E-18	6.3493E+07	2.3066E+04

Control Room Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.4534E+11	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.8131E+12	0.0000E+00	0.0000E+00
Organic I (atoms)	5.6075E+10	0.0000E+00	0.0000E+00
Aerosols (kg)	1.8300E-11	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	3.4698E-07	4.2644E-15	2.9861E+10	1.2838E+04
Sr-89	2.5471E-08	8.7673E-16	5.9324E+09	9.4243E+02
I-131	5.5000E-04	4.4364E-12	2.0394E+13	2.0350E+07
I-132	4.3273E-04	4.1923E-14	1.9126E+11	1.6011E+07
I-133	1.0125E-03	8.9382E-13	4.0472E+12	3.7464E+07
I-134	2.4396E-04	9.1451E-15	4.1099E+10	9.0265E+06
I-135	8.2352E-04	2.3450E-13	1.0461E+12	3.0470E+07
Cs-134	3.6189E-05	2.7971E-11	1.2570E+14	1.3390E+06
Cs-136	1.0389E-05	1.4175E-13	6.2766E+11	3.8438E+05
Cs-137	1.9544E-05	2.2469E-10	9.8766E+14	7.2312E+05
I-130	2.4769E-05	1.2700E-14	5.8832E+10	9.1647E+05
Cs-138	1.7984E-05	4.2502E-16	1.8547E+09	6.6542E+05
Cs-134m	5.4197E-06	6.7206E-16	3.0203E+09	2.0053E+05
Rb-88	8.9155E-07	7.4272E-18	5.0827E+07	3.2987E+04
Rb-89	5.1475E-07	3.7035E-18	2.5059E+07	1.9046E+04
Ba-137m	2.1665E-05	4.0284E-17	1.7708E+08	8.0159E+05
Br-82	3.7597E-06	3.4727E-15	2.5504E+10	1.3911E+05
Br-83	3.7725E-05	2.3880E-15	1.7326E+10	1.3958E+06
Br-84	8.6122E-06	1.2235E-16	8.7714E+08	3.1865E+05

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	2.5048E+13
Organic I (atoms)	0.0000E+00	7.7467E+11
Aerosols (kg)	0.0000E+00	2.5281E-10

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	7.5559E-07	9.2861E-15	6.5026E+10	2.7957E+04
Sr-89	5.5466E-08	1.9092E-15	1.2918E+10	2.0522E+03
I-131	1.1977E-03	9.6606E-12	4.4410E+13	4.4314E+07
I-132	9.4231E-04	9.1290E-14	4.1649E+11	3.4866E+07
I-133	2.2049E-03	1.9464E-12	8.8131E+12	8.1581E+07
I-134	5.3125E-04	1.9914E-14	8.9497E+10	1.9656E+07

I-135	1.7933E-03	5.1064E-13	2.2779E+12	6.6352E+07
Cs-134	7.8806E-05	6.0909E-11	2.7373E+14	2.9158E+06
Cs-136	2.2622E-05	3.0867E-13	1.3668E+12	8.3703E+05
Cs-137	4.2558E-05	4.8928E-10	2.1507E+15	1.5747E+06
I-130	5.3938E-05	2.7655E-14	1.2811E+11	1.9957E+06
Cs-138	3.9163E-05	9.2552E-16	4.0388E+09	1.4490E+06
Cs-134m	1.1802E-05	1.4635E-15	6.5770E+09	4.3667E+05
Rb-88	1.9414E-06	1.6173E-17	1.1068E+08	7.1833E+04
Rb-89	1.1209E-06	8.0646E-18	5.4569E+07	4.1474E+04
Ba-137m	4.7177E-05	8.7722E-17	3.8560E+08	1.7455E+06
Br-82	8.1870E-06	7.5621E-15	5.5536E+10	3.0292E+05
Br-83	8.2151E-05	5.2001E-15	3.7730E+10	3.0396E+06
Br-84	1.8754E-05	2.6642E-16	1.9100E+09	6.9389E+05

Control Room Filtered Makeup Transport Group Inventory:

	Pathway
Time (h) = 2.0000	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	5.4544E+13
Organic I (atoms)	1.6869E+12
Aerosols (kg)	5.5051E-10

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway
Time (h) = 2.0000	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway
Time (h) = 2.0000	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	1.1026E-06	1.3550E-14	9.4887E+10	4.0795E+04
Sr-89	8.0937E-08	2.7859E-15	1.8851E+10	2.9947E+03
I-131	1.7477E-03	1.4097E-11	6.4805E+13	6.4664E+07
I-132	1.3750E-03	1.3321E-13	6.0775E+11	5.0877E+07
I-133	3.2174E-03	2.8402E-12	1.2860E+13	1.1904E+08
I-134	7.7521E-04	2.9059E-14	1.3060E+11	2.8683E+07
I-135	2.6168E-03	7.4514E-13	3.3240E+12	9.6822E+07
Cs-134	1.1499E-04	8.8880E-11	3.9944E+14	4.2548E+06
Cs-136	3.3011E-05	4.5041E-13	1.9944E+12	1.2214E+06
Cs-137	6.2102E-05	7.1396E-10	3.1384E+15	2.2978E+06
I-130	7.8707E-05	4.0356E-14	1.8694E+11	2.9122E+06
Cs-138	5.7147E-05	1.3505E-15	5.8936E+09	2.1144E+06
Cs-134m	1.7222E-05	2.1355E-15	9.5973E+09	6.3720E+05
Rb-88	2.8330E-06	2.3601E-17	1.6151E+08	1.0482E+05
Rb-89	1.6357E-06	1.1768E-17	7.9628E+07	6.0520E+04
Ba-137m	6.8842E-05	1.2801E-16	5.6268E+08	2.5471E+06
Br-82	1.1947E-05	1.1035E-14	8.1040E+10	4.4203E+05
Br-83	1.1988E-04	7.5882E-15	5.5057E+10	4.4354E+06
Br-84	2.7366E-05	3.8877E-16	2.7872E+09	1.0125E+06

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	3.3300E-01	4.0925E-09	2.8658E+16	1.2321E+10
Sr-89	2.4445E-02	8.4140E-10	5.6933E+15	9.0445E+08
I-131	5.2783E+02	4.2576E-06	1.9572E+19	1.9530E+13
I-132	4.1529E+02	4.0233E-08	1.8355E+17	1.5366E+13
I-133	9.7173E+02	8.5780E-07	3.8841E+18	3.5954E+13
I-134	2.3413E+02	8.7765E-09	3.9443E+16	8.6628E+12

I-135	7.9034E+02	2.2505E-07	1.0039E+18	2.9242E+13
Xe-133	1.0690E+01	5.7111E-08	2.5859E+17	3.9553E+11
Xe-135	1.2097E+02	4.7370E-08	2.1131E+17	4.4759E+12
Cs-134	3.4731E+01	2.6844E-05	1.2064E+20	1.2850E+12
Cs-136	9.9700E+00	1.3603E-07	6.0236E+17	3.6889E+11
Cs-137	1.8756E+01	2.1563E-04	9.4786E+20	6.9398E+11
I-130	2.3771E+01	1.2188E-08	5.6461E+16	8.7953E+11
Kr-83m	2.5224E+01	1.2226E-09	8.8705E+15	9.3329E+11
Xe-131m	2.8472E-02	3.3992E-10	1.5626E+15	1.0535E+09
Xe-133m	7.5919E-01	1.6920E-09	7.6611E+15	2.8090E+10
Xe-135m	1.2937E+02	1.4202E-09	6.3353E+15	4.7867E+12
Cs-138	1.7260E+01	4.0789E-10	1.7800E+15	6.3861E+11
Cs-134m	5.2013E+00	6.4497E-10	2.8986E+15	1.9245E+11
Rb-88	8.5562E-01	7.1279E-12	4.8778E+13	3.1658E+10
Rb-89	4.9401E-01	3.5542E-12	2.4049E+13	1.8278E+10
Ba-137m	2.0792E+01	3.8660E-11	1.6994E+14	7.6929E+11
Br-82	3.6081E+00	3.3327E-09	2.4476E+16	1.3350E+11
Br-83	3.6205E+01	2.2918E-09	1.6628E+16	1.3396E+12
Br-84	8.2651E+00	1.1742E-10	8.4179E+14	3.0581E+11

SGs Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	4.9433E+17	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.4038E+19	0.0000E+00	0.0000E+00
Organic I (atoms)	7.4345E+17	0.0000E+00	0.0000E+00
Aerosols (kg)	2.4262E-04	0.0000E+00	0.0000E+00

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 8.0000

EAB Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.5873E-02	9.8674E+00	2.5080E-02	3.5279E-01
Accumulated dose (rem)	1.8319E-02	1.0605E+01	2.8791E-02	3.8052E-01

LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	8.9231E-04	5.5470E-01	1.4099E-03	1.9832E-02
Accumulated dose (rem)	1.1945E-03	6.4587E-01	1.8684E-03	2.3258E-02

Control Room Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	9.8870E-05	8.9191E-01	5.8297E-03	3.0553E-02
Accumulated dose (rem)	1.8578E-04	1.5545E+00	1.0329E-02	5.3393E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	2.3788E+02	2.9235E-06	2.0472E+19	8.8014E+12
Sr-89	1.7639E+01	6.0713E-07	4.1081E+18	6.5263E+11
I-131	3.7246E+05	3.0043E-03	1.3811E+22	1.3781E+16
I-132	4.9091E+04	4.7559E-06	2.1697E+19	1.8164E+15
I-133	5.7365E+05	5.0640E-04	2.2929E+21	2.1225E+16
I-134	1.4693E+03	5.5079E-08	2.4753E+17	5.4365E+13
I-135	3.0374E+05	8.6490E-05	3.8582E+20	1.1238E+16
Xe-133	2.7527E+04	1.4706E-04	6.6588E+20	1.0185E+15
Xe-135	2.0788E+05	8.1401E-05	3.6312E+20	7.6914E+15
Cs-134	2.5036E+04	1.9350E-02	8.6963E+22	9.2633E+14
Cs-136	7.0940E+03	9.6793E-05	4.2860E+20	2.6248E+14
Cs-137	1.3523E+04	1.5547E-01	6.8340E+23	5.0036E+14
I-130	1.2242E+04	6.2770E-06	2.9078E+19	4.5296E+14
Kr-83m	9.9770E+03	4.8357E-07	3.5086E+18	3.6915E+14
Xe-131m	8.0647E+01	9.6283E-07	4.4262E+18	2.9840E+12
Xe-133m	1.9063E+03	4.2484E-06	1.9236E+19	7.0532E+13
Xe-135m	4.9988E+04	5.4876E-07	2.4479E+18	1.8495E+15
Cs-138	5.3631E+00	1.2675E-10	5.5310E+14	1.9844E+11
Cs-134m	8.9378E+02	1.1083E-07	4.9809E+17	3.3070E+13
Rb-88	5.0347E-04	4.1942E-15	2.8703E+10	1.8628E+07
Rb-89	2.6425E-05	1.9012E-16	1.2864E+09	9.7773E+05
Ba-137m	1.4991E+04	2.7874E-08	1.2253E+17	5.5466E+14
Br-82	2.3124E+03	2.1359E-06	1.5686E+19	8.5558E+13
Br-83	4.5813E+03	2.9000E-07	2.1041E+18	1.6951E+14
Br-84	2.3297E+00	3.3097E-11	2.3728E+14	8.6200E+10

PCS Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.0586E+21	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.6062E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	4.9676E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7492E-01	0.0000E+00	0.0000E+00

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	2.4961E-02	3.0676E-10	2.1481E+15	9.2354E+08
Sr-89	1.8508E-03	6.3707E-11	4.3107E+14	6.8481E+07
I-131	3.9082E+01	3.1524E-07	1.4492E+18	1.4460E+12
I-132	5.1511E+00	4.9904E-10	2.2767E+15	1.9059E+11
I-133	6.0194E+01	5.3137E-08	2.4060E+17	2.2272E+12
I-134	1.5418E-01	5.7795E-12	2.5974E+13	5.7046E+09
I-135	3.1872E+01	9.0755E-09	4.0484E+16	1.1793E+12
Xe-133	2.8896E+00	1.5438E-08	6.9900E+16	1.0692E+11
Xe-135	2.1821E+01	8.5449E-09	3.8118E+16	8.0739E+11
Cs-134	2.6271E+00	2.0305E-06	9.1251E+18	9.7201E+10
Cs-136	7.4438E-01	1.0157E-08	4.4974E+16	2.7542E+10
Cs-137	1.4190E+00	1.6314E-05	7.1710E+19	5.2503E+10
I-130	1.2846E+00	6.5865E-10	3.0511E+15	4.7530E+10
Kr-83m	1.0473E+00	5.0762E-11	3.6831E+14	3.8751E+10
Xe-131m	8.4659E-03	1.0107E-10	4.6463E+14	3.1324E+08

Xe-133m	2.0011E-01	4.4597E-10	2.0193E+15	7.4040E+09
Xe-135m	5.2463E+00	5.7594E-11	2.5692E+14	1.9411E+11
Cs-138	5.6276E-04	1.3300E-14	5.8037E+10	2.0822E+07
Cs-134m	9.3785E-02	1.1630E-11	5.2265E+13	3.4701E+09
Ba-137m	1.5730E+00	2.9249E-12	1.2857E+13	5.8201E+10
Br-82	2.4264E-01	2.2412E-10	1.6459E+15	8.9777E+09
Br-83	4.8072E-01	3.0430E-11	2.2078E+14	1.7787E+10
Br-84	2.4446E-04	3.4729E-15	2.4898E+10	9.0450E+06

Environment Transport Group Inventory:

Time (h) = 8.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	5.4951E+14	7.6321E+12	1.1113E+17
Elemental I (atoms)	8.3323E+15	1.1573E+14	1.6854E+18
Organic I (atoms)	2.5770E+14	3.5792E+12	5.2125E+16
Aerosols (kg)	9.0743E-08	1.2603E-09	1.8355E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	1.0640E-05	1.3077E-13	9.1570E+11	3.9369E+05
Sr-89	7.8897E-07	2.7157E-14	1.8376E+11	2.9192E+04
I-131	1.6660E-02	1.3438E-10	6.1776E+14	6.1642E+08
I-132	2.1958E-03	2.1273E-13	9.7052E+11	8.1246E+07
I-133	2.5660E-02	2.2651E-11	1.0256E+14	9.4940E+08
I-134	6.5723E-05	2.4637E-15	1.1072E+10	2.4317E+06
I-135	1.3586E-02	3.8687E-12	1.7258E+13	5.0269E+08
Cs-134	1.1199E-03	8.6554E-10	3.8899E+15	4.1435E+07
Cs-136	3.1732E-04	4.3295E-12	1.9171E+13	1.1741E+07
Cs-137	6.0489E-04	6.9542E-09	3.0569E+16	2.2381E+07
I-130	5.4759E-04	2.8077E-13	1.3006E+12	2.0261E+07
Cs-138	2.3989E-07	5.6693E-18	2.4740E+07	8.8761E+03
Cs-134m	3.9979E-05	4.9575E-15	2.2280E+10	1.4792E+06
Ba-137m	6.7054E-04	1.2468E-15	5.4806E+09	2.4810E+07
Br-82	1.0343E-04	9.5538E-14	7.0163E+11	3.8270E+06
Br-83	2.0492E-04	1.2972E-14	9.4116E+10	7.5821E+06
Br-84	1.0421E-07	1.4804E-18	1.0613E+07	3.8557E+03

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	7.1844E+14
Organic I (atoms)	2.2220E+13
Aerosols (kg)	7.8242E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00

Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	8.6210E-08	1.0595E-15	7.4192E+09	3.1898E+03
Sr-89	6.3925E-09	2.2003E-16	1.4889E+09	2.3652E+02
I-131	1.3498E-04	1.0888E-12	5.0053E+12	4.9944E+06
I-132	1.7791E-05	1.7236E-15	7.8634E+09	6.5827E+05
I-133	2.0790E-04	1.8353E-13	8.3099E+11	7.6923E+06
I-134	5.3250E-07	1.9961E-17	8.9709E+07	1.9703E+04
I-135	1.1008E-04	3.1345E-14	1.3983E+11	4.0730E+06
Xe-133	1.9394E-04	1.0361E-12	4.6915E+12	7.1759E+06
Xe-135	1.4339E-03	5.6149E-13	2.5047E+12	5.3054E+07
Cs-134	9.0734E-06	7.0128E-12	3.1517E+13	3.3572E+05
Cs-136	2.5710E-06	3.5079E-14	1.5533E+11	9.5126E+04
Cs-137	4.9010E-06	5.6345E-11	2.4768E+14	1.8134E+05
I-130	4.4368E-06	2.2749E-15	1.0538E+10	1.6416E+05
Kr-83m	8.0027E-05	3.8788E-15	2.8143E+10	2.9610E+06
Xe-131m	5.8476E-07	6.9813E-15	3.2093E+10	2.1636E+04
Xe-133m	1.3545E-05	3.0187E-14	1.3669E+11	5.0117E+05
Xe-135m	1.3941E-03	1.5304E-14	6.8271E+10	5.1582E+07
Cs-138	1.9437E-09	4.5934E-20	2.0045E+05	7.1916E+01
Cs-134m	3.2392E-07	4.0167E-17	1.8052E+08	1.1985E+04
Ba-137m	5.4329E-06	1.0102E-17	4.4405E+07	2.0102E+05
Br-82	8.3804E-07	7.7407E-16	5.6848E+09	3.1007E+04
Br-83	1.6603E-06	1.0510E-16	7.6255E+08	6.1432E+04

Control Room Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	7.4614E+12	0.0000E+00	0.0000E+00
Elemental I (atoms)	5.8210E+12	0.0000E+00	0.0000E+00
Organic I (atoms)	1.8003E+11	0.0000E+00	0.0000E+00
Aerosols (kg)	6.3394E-11	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	1.0942E-06	1.3448E-14	9.4170E+10	4.0487E+04
Sr-89	8.1138E-08	2.7928E-15	1.8898E+10	3.0021E+03
I-131	1.7133E-03	1.3820E-11	6.3531E+13	6.3393E+07
I-132	2.2582E-04	2.1877E-14	9.9808E+10	8.3553E+06
I-133	2.6388E-03	2.3295E-12	1.0548E+13	9.7637E+07
I-134	6.7589E-06	2.5336E-16	1.1387E+09	2.5008E+05
I-135	1.3972E-03	3.9786E-13	1.7748E+12	5.1697E+07
Cs-134	1.1517E-04	8.9012E-11	4.0003E+14	4.2612E+06
Cs-136	3.2633E-05	4.4525E-13	1.9716E+12	1.2074E+06
Cs-137	6.2207E-05	7.1517E-10	3.1437E+15	2.3017E+06
I-130	5.6315E-05	2.8874E-14	1.3376E+11	2.0836E+06
Cs-138	2.4671E-08	5.8303E-19	2.5443E+06	9.1282E+02
Cs-134m	4.1114E-06	5.0983E-16	2.2912E+09	1.5212E+05
Ba-137m	6.8958E-05	1.2822E-16	5.6363E+08	2.5514E+06
Br-82	1.0637E-05	9.8251E-15	7.2156E+10	3.9357E+05
Br-83	2.1074E-05	1.3340E-15	9.6789E+09	7.7974E+05
Br-84	1.0717E-08	1.5225E-19	1.0915E+06	3.9652E+02

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	7.3885E+13
Organic I (atoms)	0.0000E+00	2.2851E+12
Aerosols (kg)	0.0000E+00	8.0465E-10

Control Room Unfiltered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	1.0640E-05	1.3077E-13	9.1570E+11	3.9369E+05
Sr-89	7.8897E-07	2.7157E-14	1.8376E+11	2.9192E+04
I-131	1.6660E-02	1.3438E-10	6.1776E+14	6.1642E+08
I-132	2.1958E-03	2.1273E-13	9.7052E+11	8.1246E+07
I-133	2.5660E-02	2.2651E-11	1.0256E+14	9.4940E+08
I-134	6.5723E-05	2.4637E-15	1.1072E+10	2.4317E+06
I-135	1.3586E-02	3.8687E-12	1.7258E+13	5.0269E+08
Cs-134	1.1199E-03	8.6554E-10	3.8899E+15	4.1435E+07
Cs-136	3.1732E-04	4.3295E-12	1.9171E+13	1.1741E+07
Cs-137	6.0489E-04	6.9542E-09	3.0569E+16	2.2381E+07
I-130	5.4759E-04	2.8077E-13	1.3006E+12	2.0261E+07
Cs-138	2.3989E-07	5.6693E-18	2.4740E+07	8.8761E+03
Cs-134m	3.9979E-05	4.9575E-15	2.2280E+10	1.4792E+06
Ba-137m	6.7054E-04	1.2468E-15	5.4806E+09	2.4810E+07
Br-82	1.0343E-04	9.5538E-14	7.0163E+11	3.8270E+06
Br-83	2.0492E-04	1.2972E-14	9.4116E+10	7.5821E+06
Br-84	1.0421E-07	1.4804E-18	1.0613E+07	3.8557E+03

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	7.1844E+14
Organic I (atoms)	2.2220E+13
Aerosols (kg)	7.8242E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	1.1734E-05	1.4422E-13	1.0099E+12	4.3417E+05
Sr-89	8.7011E-07	2.9950E-14	2.0265E+11	3.2194E+04
I-131	1.8373E-02	1.4820E-10	6.8129E+14	6.7981E+08
I-132	2.4216E-03	2.3461E-13	1.0703E+12	8.9601E+07
I-133	2.8298E-02	2.4981E-11	1.1311E+14	1.0470E+09
I-134	7.2482E-05	2.7170E-15	1.2211E+10	2.6818E+06
I-135	1.4984E-02	4.2666E-12	1.9032E+13	5.5439E+08
Cs-134	1.2350E-03	9.5455E-10	4.2899E+15	4.5696E+07
Cs-136	3.4995E-04	4.7748E-12	2.1143E+13	1.2948E+07
Cs-137	6.6710E-04	7.6694E-09	3.3712E+16	2.4683E+07
I-130	6.0391E-04	3.0964E-13	1.4344E+12	2.2345E+07
Cs-138	2.6456E-07	6.2523E-18	2.7284E+07	9.7889E+03

Cs-134m	4.4090E-05	5.4673E-15	2.4571E+10	1.6313E+06
Ba-137m	7.3949E-04	1.3750E-15	6.0442E+09	2.7361E+07
Br-82	1.1407E-04	1.0536E-13	7.7379E+11	4.2206E+06
Br-83	2.2599E-04	1.4305E-14	1.0379E+11	8.3618E+06
Br-84	1.1493E-07	1.6327E-18	1.1705E+07	4.2522E+03

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	1.2986E+00	1.5959E-08	1.1175E+17	4.8047E+10
Sr-89	9.6289E-02	3.3143E-09	2.2426E+16	3.5627E+09
I-131	2.0332E+03	1.6400E-05	7.5394E+19	7.5230E+13
I-132	2.6798E+02	2.5962E-08	1.1844E+17	9.9154E+12
I-133	3.1316E+03	2.7644E-06	1.2517E+19	1.1587E+14
I-134	8.0210E+00	3.0067E-10	1.3513E+15	2.9678E+11
I-135	1.6581E+03	4.7215E-07	2.1062E+18	6.1350E+13
Xe-133	1.5027E+02	8.0280E-07	3.6350E+18	5.5600E+12
Xe-135	1.1348E+03	4.4436E-07	1.9822E+18	4.1987E+13
Cs-134	1.3667E+02	1.0563E-04	4.7473E+20	5.0568E+12
Cs-136	3.8726E+01	5.2839E-07	2.3397E+18	1.4329E+12
Cs-137	7.3822E+01	8.4871E-04	3.7307E+21	2.7314E+12
I-130	6.6830E+01	3.4266E-08	1.5873E+17	2.4727E+12
Kr-83m	5.4464E+01	2.6398E-09	1.9153E+16	2.0152E+12
Xe-131m	4.4025E-01	5.2560E-09	2.4162E+16	1.6289E+10
Xe-133m	1.0406E+01	2.3192E-08	1.0501E+17	3.8503E+11
Xe-135m	2.7288E+02	2.9956E-09	1.3363E+16	1.0097E+13
Cs-138	2.9277E-02	6.9190E-13	3.0194E+12	1.0833E+09
Cs-134m	4.8791E+00	6.0502E-10	2.7191E+15	1.8053E+11
Rb-88	2.7484E-06	2.2896E-17	1.5669E+08	1.0169E+05
Rb-89	1.4425E-07	1.0379E-18	7.0226E+06	5.3374E+03
Ba-137m	8.1834E+01	1.5216E-10	6.6887E+14	3.0279E+12
Br-82	1.2623E+01	1.1660E-08	8.5629E+16	4.6706E+11
Br-83	2.5009E+01	1.5831E-09	1.1486E+16	9.2534E+11
Br-84	1.2718E-02	1.8067E-13	1.2953E+12	4.7056E+08

SGs Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.7790E+18	0.0000E+00	0.0000E+00
Elemental I (atoms)	8.7681E+19	0.0000E+00	0.0000E+00
Organic I (atoms)	2.7118E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	9.5489E-04	0.0000E+00	0.0000E+00

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 24.0000

EAB Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.2232E-06	9.1590E-06	2.0547E-06	1.5359E-06
Accumulated dose (rem)	1.8320E-02	1.0605E+01	2.8793E-02	3.8052E-01

LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	4.6296E-08	3.4665E-07	7.7765E-08	5.8131E-08
Accumulated dose (rem)	1.1946E-03	6.4587E-01	1.8685E-03	2.3258E-02

Control Room Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	9.9796E-05	4.9215E-02	5.6749E-03	1.7801E-03
Accumulated dose (rem)	2.8558E-04	1.6037E+00	1.6004E-02	5.5173E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	2.3206E+02	2.8520E-06	1.9971E+19	8.5861E+12
Sr-89	1.7478E+01	6.0160E-07	4.0707E+18	6.4668E+11
I-131	3.5165E+05	2.8365E-03	1.3040E+22	1.3011E+16
I-132	3.9525E+02	3.8292E-08	1.7470E+17	1.4624E+13
I-133	3.3658E+05	2.9712E-04	1.3453E+21	1.2453E+16
I-134	4.7101E-03	1.7656E-13	7.9350E+11	1.7427E+08
I-135	5.6733E+04	1.6155E-05	7.2064E+19	2.0991E+15
Xe-133	6.1738E+04	3.2983E-04	1.4934E+21	2.2843E+15
Xe-135	1.4977E+05	5.8649E-05	2.6162E+20	5.5416E+15
Cs-134	2.5021E+04	1.9339E-02	8.6910E+22	9.2577E+14
Cs-136	6.8482E+03	9.3438E-05	4.1375E+20	2.5338E+14
Cs-137	1.3523E+04	1.5546E-01	6.8338E+23	5.0033E+14
I-130	4.9909E+03	2.5590E-06	1.1854E+19	1.8466E+14
Kr-83m	1.6697E+02	8.0926E-09	5.8717E+16	6.1778E+12
Xe-131m	2.3058E+02	2.7528E-06	1.2655E+19	8.5313E+12
Xe-133m	3.9757E+03	8.8604E-06	4.0119E+19	1.4710E+14
Xe-135m	9.3368E+03	1.0250E-07	4.5723E+17	3.4546E+14
Cs-138	5.6835E-09	1.3431E-19	5.8613E+05	2.1029E+02
Cs-134m	1.9515E+01	2.4200E-09	1.0876E+16	7.2207E+11
Ba-137m	1.4990E+04	2.7873E-08	1.2252E+17	5.5463E+14
Br-82	1.6889E+03	1.5600E-06	1.1457E+19	6.2491E+13
Br-83	4.4231E+01	2.7998E-09	2.0314E+16	1.6365E+12
Br-84	1.9037E-09	2.7045E-20	1.9389E+05	7.0438E+01

PCS Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.8084E+21	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.4046E+22	0.0000E+00	0.0000E+00
Organic I (atoms)	4.3441E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7490E-01	0.0000E+00	0.0000E+00

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Xe-133	6.4813E+00	3.4626E-08	1.5678E+17	2.3981E+11
Xe-135	1.5723E+01	6.1570E-09	2.7465E+16	5.8176E+11

Kr-83m	1.7528E-02	8.4955E-13	6.1640E+12	6.4854E+08
Xe-131m	2.4206E-02	2.8899E-10	1.3285E+15	8.9562E+08
Xe-133m	4.1737E-01	9.3016E-10	4.2117E+15	1.5443E+10
Xe-135m	9.7993E-01	1.0758E-11	4.7988E+13	3.6257E+10

Environment Transport Group Inventory:

Time (h) = 24.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	5.3073E+10	7.3712E+08	1.8984E+17
Elemental I (atoms)	4.3660E-22	6.0639E-24	1.4739E+18
Organic I (atoms)	1.3503E-23	1.8754E-25	4.5584E+16
Aerosols (kg)	4.2039E-45	5.8387E-47	1.8352E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	1.0380E-05	1.2757E-13	8.9330E+11	3.8406E+05
Sr-89	7.8179E-07	2.6910E-14	1.8208E+11	2.8926E+04
I-131	1.5730E-02	1.2688E-10	5.8326E+14	5.8199E+08
I-132	1.7680E-05	1.7128E-15	7.8142E+09	6.5415E+05
I-133	1.5055E-02	1.3290E-11	6.0177E+13	5.5704E+08
I-135	2.5377E-03	7.2260E-13	3.2234E+12	9.3894E+07
Cs-134	1.1192E-03	8.6501E-10	3.8875E+15	4.1410E+07
Cs-136	3.0632E-04	4.1795E-12	1.8507E+13	1.1334E+07
Cs-137	6.0486E-04	6.9539E-09	3.0567E+16	2.2380E+07
I-130	2.2324E-04	1.1446E-13	5.3024E+11	8.2600E+06
Cs-134m	8.7292E-07	1.0824E-16	4.8646E+08	3.2298E+04
Ba-137m	6.7051E-04	1.2468E-15	5.4804E+09	2.4809E+07
Br-82	7.5546E-05	6.9780E-14	5.1247E+11	2.7952E+06
Br-83	1.9784E-06	1.2524E-16	9.0866E+08	7.3202E+04

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	6.2828E+14
Organic I (atoms)	1.9431E+13
Aerosols (kg)	7.8233E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00

Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Xe-133	3.8832E-05	2.0746E-13	9.3935E+11	1.4368E+06
Xe-135	8.6704E-05	3.3952E-14	1.5145E+11	3.2081E+06
Kr-83m	3.4565E-07	1.6753E-17	1.2155E+08	1.2789E+04
Xe-131m	2.0209E-07	2.4127E-15	1.1091E+10	7.4773E+03
Xe-133m	2.7708E-06	6.1752E-15	2.7961E+10	1.0252E+05
Xe-135m	2.4787E-04	2.7211E-15	1.2138E+10	9.1712E+06

Control Room Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.1421E+12	0.0000E+00	0.0000E+00
Elemental I (atoms)	8.7549E-21	0.0000E+00	0.0000E+00
Organic I (atoms)	2.7077E-22	0.0000E+00	0.0000E+00
Aerosols (kg)	1.0930E-43	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	1.1092E-06	1.3632E-14	9.5457E+10	4.1040E+04
Sr-89	8.3542E-08	2.8756E-15	1.9457E+10	3.0910E+03
I-131	1.6809E-03	1.3558E-11	6.2327E+13	6.2191E+07
I-132	1.8893E-06	1.8303E-16	8.3502E+08	6.9902E+04
I-133	1.6088E-03	1.4202E-12	6.4305E+12	5.9525E+07
I-135	2.7118E-04	7.7217E-14	3.4445E+11	1.0033E+07
Cs-134	1.1960E-04	9.2435E-11	4.1542E+14	4.4250E+06
Cs-136	3.2733E-05	4.4662E-13	1.9776E+12	1.2111E+06
Cs-137	6.4636E-05	7.4309E-10	3.2664E+15	2.3915E+06
I-130	2.3856E-05	1.2232E-14	5.6661E+10	8.8266E+05
Cs-134m	9.3280E-08	1.1567E-17	5.1983E+07	3.4514E+03
Ba-137m	7.1650E-05	1.3323E-16	5.8563E+08	2.6511E+06
Br-82	8.0728E-06	7.4566E-15	5.4762E+10	2.9870E+05
Br-83	2.1142E-07	1.3383E-17	9.7099E+07	7.8224E+03

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	6.7138E+13
Organic I (atoms)	0.0000E+00	2.0764E+12
Aerosols (kg)	0.0000E+00	8.3599E-10

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	1.0380E-05	1.2757E-13	8.9330E+11	3.8406E+05
Sr-89	7.8179E-07	2.6910E-14	1.8208E+11	2.8926E+04
I-131	1.5730E-02	1.2688E-10	5.8326E+14	5.8199E+08
I-132	1.7680E-05	1.7128E-15	7.8142E+09	6.5415E+05
I-133	1.5055E-02	1.3290E-11	6.0177E+13	5.5704E+08
I-135	2.5377E-03	7.2260E-13	3.2234E+12	9.3894E+07
Cs-134	1.1192E-03	8.6501E-10	3.8875E+15	4.1410E+07
Cs-136	3.0632E-04	4.1795E-12	1.8507E+13	1.1334E+07
Cs-137	6.0486E-04	6.9539E-09	3.0567E+16	2.2380E+07
I-130	2.2324E-04	1.1446E-13	5.3024E+11	8.2600E+06
Cs-134m	8.7292E-07	1.0824E-16	4.8646E+08	3.2298E+04
Ba-137m	6.7051E-04	1.2468E-15	5.4804E+09	2.4809E+07
Br-82	7.5546E-05	6.9780E-14	5.1247E+11	2.7952E+06

Br-83	1.9784E-06	1.2524E-16	9.0866E+08	7.3202E+04

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	6.2828E+14
Organic I (atoms)	1.9431E+13
Aerosols (kg)	7.8233E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	1.1489E-05	1.4120E-13	9.8875E+11	4.2510E+05
Sr-89	8.6533E-07	2.9785E-14	2.0154E+11	3.2017E+04
I-131	1.7410E-02	1.4043E-10	6.4559E+14	6.4418E+08
I-132	1.9569E-05	1.8958E-15	8.6492E+09	7.2405E+05
I-133	1.6664E-02	1.4710E-11	6.6607E+13	6.1657E+08
I-135	2.8089E-03	7.9982E-13	3.5679E+12	1.0393E+08
Cs-134	1.2388E-03	9.5745E-10	4.3029E+15	4.5835E+07
Cs-136	3.3905E-04	4.6261E-12	2.0485E+13	1.2545E+07
Cs-137	6.6950E-04	7.6970E-09	3.3834E+16	2.4771E+07
I-130	2.4710E-04	1.2669E-13	5.8690E+11	9.1426E+06
Cs-134m	9.6620E-07	1.1981E-16	5.3845E+08	3.5749E+04
Ba-137m	7.4216E-04	1.3800E-15	6.0660E+09	2.7460E+07
Br-82	8.3619E-05	7.7236E-14	5.6723E+11	3.0939E+06
Br-83	2.1899E-06	1.3862E-16	1.0058E+09	8.1025E+04

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	1.2668E+00	1.5569E-08	1.0902E+17	4.6871E+10
Sr-89	9.5411E-02	3.2841E-09	2.2222E+16	3.5302E+09
I-131	1.9197E+03	1.5484E-05	7.1182E+19	7.1028E+13
I-132	2.1577E+00	2.0903E-10	9.5366E+14	7.9834E+10
I-133	1.8374E+03	1.6220E-06	7.3441E+18	6.7983E+13
I-134	2.5712E-05	9.6385E-16	4.3317E+09	9.5136E+05
I-135	3.0971E+02	8.8188E-08	3.9339E+17	1.1459E+13
Xe-133	3.3703E+02	1.8005E-06	8.1527E+18	1.2470E+13
Xe-135	8.1761E+02	3.2016E-07	1.4282E+18	3.0252E+13
Cs-134	1.3659E+02	1.0557E-04	4.7444E+20	5.0537E+12
Cs-136	3.7384E+01	5.1008E-07	2.2586E+18	1.3832E+12
Cs-137	7.3819E+01	8.4867E-04	3.7305E+21	2.7313E+12
I-130	2.7245E+01	1.3969E-08	6.4712E+16	1.0081E+12
Kr-83m	9.1147E-01	4.4177E-11	3.2053E+14	3.3724E+10
Xe-131m	1.2587E+00	1.5027E-08	6.9081E+16	4.6572E+10
Xe-133m	2.1703E+01	4.8368E-08	2.1901E+17	8.0302E+11
Xe-135m	5.0969E+01	5.5953E-10	2.4960E+15	1.8859E+12
Cs-134m	1.0653E-01	1.3210E-11	5.9369E+13	3.9417E+09
Ba-137m	8.1830E+01	1.5216E-10	6.6884E+14	3.0277E+12
Br-82	9.2199E+00	8.5161E-09	6.2543E+16	3.4114E+11
Br-83	2.4145E-01	1.5284E-11	1.1089E+14	8.9338E+09

SGs Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	9.8718E+18	0.0000E+00	0.0000E+00
Elemental I (atoms)	7.6677E+19	0.0000E+00	0.0000E+00
Organic I (atoms)	2.3714E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	9.5477E-04	0.0000E+00	0.0000E+00

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 96.0000

EAB Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.7717E-07	1.7275E-38	4.7313E-07	2.7717E-07
Accumulated dose (rem)	1.8320E-02	1.0605E+01	2.8793E-02	3.8052E-01

LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	4.4584E-09	2.7788E-40	7.6105E-09	4.4584E-09
Accumulated dose (rem)	1.1946E-03	6.4587E-01	1.8685E-03	2.3258E-02

Control Room Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.3568E-05	4.3588E-35	7.8405E-04	1.3568E-05
Accumulated dose (rem)	2.9914E-04	1.6037E+00	1.6788E-02	5.5187E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.0759E+02	2.5512E-06	1.7865E+19	7.6807E+12
Sr-89	1.6773E+01	5.7733E-07	3.9065E+18	6.2060E+11
I-131	2.7151E+05	2.1901E-03	1.0068E+22	1.0046E+16
I-132	1.4905E-07	1.4440E-17	6.5877E+07	5.5148E+03
I-133	3.0553E+04	2.6971E-05	1.2212E+20	1.1305E+15
I-135	2.9843E+01	8.4978E-09	3.7907E+16	1.1042E+12
Xe-133	8.0566E+04	4.3042E-04	1.9489E+21	2.9810E+15
Xe-135	1.1664E+03	4.5675E-07	2.0375E+18	4.3157E+13
Cs-134	2.4952E+04	1.9285E-02	8.6670E+22	9.2322E+14
Cs-136	5.8430E+03	7.9723E-05	3.5302E+20	2.1619E+14
Cs-137	1.3520E+04	1.5543E-01	6.8325E+23	5.0024E+14
I-130	8.8025E+01	4.5133E-08	2.0907E+17	3.2569E+12
Kr-83m	1.6174E-07	7.8390E-18	5.6877E+07	5.9842E+03
Xe-131m	7.4298E+02	8.8703E-06	4.0777E+19	2.7490E+13
Xe-133m	3.4311E+03	7.6466E-06	3.4623E+19	1.2695E+14
Xe-135m	4.9113E+00	5.3916E-11	2.4051E+14	1.8172E+11
Cs-134m	6.5543E-07	8.1275E-17	3.6526E+08	2.4251E+04

Ba-137m	1.4987E+04	2.7868E-08	1.2250E+17	5.5453E+14
Br-82	4.1079E+02	3.7943E-07	2.7866E+18	1.5199E+13
Br-83	3.7760E-08	2.3902E-18	1.7343E+07	1.3971E+03

PCS Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.0263E+21	0.0000E+00	0.0000E+00
Elemental I (atoms)	9.8872E+21	0.0000E+00	0.0000E+00
Organic I (atoms)	3.0579E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7480E-01	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Xe-133	8.4579E+00	4.5186E-08	2.0460E+17	3.1294E+11
Xe-135	1.2245E-01	4.7950E-11	2.1390E+14	4.5307E+09
Xe-131m	7.7999E-02	9.3121E-10	4.2808E+15	2.8860E+09
Xe-133m	3.6020E-01	8.0275E-10	3.6348E+15	1.3327E+10
Xe-135m	5.1547E-04	5.6587E-15	2.5243E+10	1.9072E+07

Environment Transport Group Inventory:

Time (h) = 96.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	4.4820E+09	6.2250E+07	2.1273E+17
Elemental I (atoms)	0.0000E+00	0.0000E+00	1.0375E+18
Organic I (atoms)	0.0000E+00	0.0000E+00	3.2087E+16
Aerosols (kg)	0.0000E+00	0.0000E+00	1.8342E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	9.2853E-06	1.1412E-13	7.9910E+11	3.4356E+05
Sr-89	7.5025E-07	2.5824E-14	1.7474E+11	2.7759E+04
I-131	1.2145E-02	9.7962E-11	4.5034E+14	4.4936E+08
I-133	1.3667E-03	1.2064E-12	5.4626E+12	5.0566E+07
I-135	1.3349E-06	3.8011E-16	1.6956E+09	4.9390E+04
Cs-134	1.1161E-03	8.6263E-10	3.8768E+15	4.1296E+07
Cs-136	2.6136E-04	3.5660E-12	1.5791E+13	9.6702E+06
Cs-137	6.0475E-04	6.9526E-09	3.0562E+16	2.2376E+07
I-130	3.9373E-06	2.0188E-15	9.3519E+09	1.4568E+05
Ba-137m	6.7038E-04	1.2465E-15	5.4793E+09	2.4804E+07
Br-82	1.8374E-05	1.6972E-14	1.2464E+11	6.7985E+05

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.4226E+14
Organic I (atoms)	1.3678E+13
Aerosols (kg)	7.8189E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Xe-133	3.5251E-06	1.8832E-14	8.5271E+10	1.3043E+05
Xe-135	4.5608E-08	1.7860E-17	7.9669E+07	1.6875E+03
Xe-131m	1.5603E-07	1.8628E-15	8.5635E+09	5.7732E+03
Xe-133m	2.5153E-07	5.6056E-16	2.5382E+09	9.3065E+03
Xe-135m	1.3039E-07	1.4314E-18	6.3851E+06	4.8243E+03

Control Room Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	9.6459E+10	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	9.9223E-07	1.2194E-14	8.5391E+10	3.6712E+04
Sr-89	8.0171E-08	2.7596E-15	1.8672E+10	2.9663E+03
I-131	1.2978E-03	1.0468E-11	4.8123E+13	4.8018E+07
I-133	1.4604E-04	1.2892E-13	5.8373E+11	5.4035E+06
I-135	1.4264E-07	4.0618E-17	1.8119E+08	5.2778E+03
Cs-134	1.1927E-04	9.2180E-11	4.1427E+14	4.4128E+06
Cs-136	2.7929E-05	3.8106E-13	1.6874E+12	1.0334E+06
Cs-137	6.4623E-05	7.4295E-10	3.2658E+15	2.3911E+06
I-130	4.2074E-07	2.1573E-16	9.9934E+08	1.5568E+04
Ba-137m	7.1637E-05	1.3320E-16	5.8552E+08	2.6506E+06
Br-82	1.9635E-06	1.8136E-15	1.3319E+10	7.2649E+04

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	4.7259E+13
Organic I (atoms)	0.0000E+00	1.4616E+12
Aerosols (kg)	0.0000E+00	8.3553E-10

Control Room Unfiltered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	9.2853E-06	1.1412E-13	7.9910E+11	3.4356E+05
Sr-89	7.5025E-07	2.5824E-14	1.7474E+11	2.7759E+04
I-131	1.2145E-02	9.7962E-11	4.5034E+14	4.4936E+08
I-133	1.3667E-03	1.2064E-12	5.4626E+12	5.0566E+07
I-135	1.3349E-06	3.8011E-16	1.6956E+09	4.9390E+04
Cs-134	1.1161E-03	8.6263E-10	3.8768E+15	4.1296E+07
Cs-136	2.6136E-04	3.5660E-12	1.5791E+13	9.6702E+06
Cs-137	6.0475E-04	6.9526E-09	3.0562E+16	2.2376E+07
I-130	3.9373E-06	2.0188E-15	9.3519E+09	1.4568E+05
Ba-137m	6.7038E-04	1.2465E-15	5.4793E+09	2.4804E+07
Br-82	1.8374E-05	1.6972E-14	1.2464E+11	6.7985E+05

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.4226E+14
Organic I (atoms)	1.3678E+13
Aerosols (kg)	7.8189E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	1.0278E-05	1.2631E-13	8.8449E+11	3.8027E+05
Sr-89	8.3042E-07	2.8584E-14	1.9341E+11	3.0726E+04
I-131	1.3443E-02	1.0843E-10	4.9846E+14	4.9738E+08
I-133	1.5127E-03	1.3354E-12	6.0464E+12	5.5970E+07
I-135	1.4775E-06	4.2072E-16	1.8768E+09	5.4668E+04
Cs-134	1.2354E-03	9.5481E-10	4.2910E+15	4.5708E+07
Cs-136	2.8929E-04	3.9471E-12	1.7478E+13	1.0704E+07
Cs-137	6.6937E-04	7.6955E-09	3.3827E+16	2.4767E+07
I-130	4.3581E-06	2.2345E-15	1.0351E+10	1.6125E+05
Ba-137m	7.4202E-04	1.3797E-15	6.0649E+09	2.7455E+07
Br-82	2.0338E-05	1.8786E-14	1.3796E+11	7.5250E+05

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	1.1332E+00	1.3927E-08	9.7524E+16	4.1929E+10
Sr-89	9.1563E-02	3.1517E-09	2.1325E+16	3.3878E+09
I-131	1.4822E+03	1.1956E-05	5.4960E+19	5.4841E+13

I-132	8.1365E-10	7.8826E-20	3.5962E+05	3.0105E+01
I-133	1.6679E+02	1.4724E-07	6.6667E+17	6.1713E+12
I-135	1.6291E-01	4.6389E-11	2.0693E+14	6.0277E+09
Xe-133	4.3981E+02	2.3496E-06	1.0639E+19	1.6273E+13
Xe-135	6.3674E+00	2.4934E-09	1.1123E+16	2.3559E+11
Cs-134	1.3621E+02	1.0528E-04	4.7313E+20	5.0398E+12
Cs-136	3.1897E+01	4.3521E-07	1.9271E+18	1.1802E+12
Cs-137	7.3805E+01	8.4851E-04	3.7298E+21	2.7308E+12
I-130	4.8052E-01	2.4638E-10	1.1413E+15	1.7779E+10
Kr-83m	8.8291E-10	4.2793E-20	3.1049E+05	3.2668E+01
Xe-131m	4.0559E+00	4.8423E-08	2.2260E+17	1.5007E+11
Xe-133m	1.8730E+01	4.1743E-08	1.8901E+17	6.9302E+11
Xe-135m	2.6811E-02	2.9433E-13	1.3129E+12	9.9200E+08
Cs-134m	3.5780E-09	4.4368E-19	1.9940E+06	1.3239E+02
Ba-137m	8.1815E+01	1.5213E-10	6.6871E+14	3.0272E+12
Br-82	2.2425E+00	2.0713E-09	1.5212E+16	8.2971E+10

SGs Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.1062E+19	0.0000E+00	0.0000E+00
Elemental I (atoms)	5.3974E+19	0.0000E+00	0.0000E+00
Organic I (atoms)	1.6693E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	9.5424E-04	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 720.0000

EAB Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.0239E-09	4.2422-186	3.8997E-09	1.0239E-09
Accumulated dose (rem)	1.8320E-02	1.0605E+01	2.8793E-02	3.8052E-01

LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	4.8249E-12	1.9991-188	1.8377E-11	4.8249E-12
Accumulated dose (rem)	1.1946E-03	6.4587E-01	1.8685E-03	2.3258E-02

Control Room Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.3413E-08	7.1358-183	4.3083E-06	3.3413E-08
Accumulated dose (rem)	2.9918E-04	1.6037E+00	1.6792E-02	5.5187E-02

PCS Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	7.9024E+01	9.7119E-07	6.8008E+18	2.9239E+12
Sr-89	1.1739E+01	4.0406E-07	2.7340E+18	4.3433E+11
I-131	2.8861E+04	2.3280E-04	1.0702E+21	1.0679E+15
I-133	2.8455E-05	2.5119E-14	1.1374E+11	1.0528E+06
Xe-133	2.8707E+03	1.5337E-05	6.9443E+19	1.0622E+14
Cs-134	2.4362E+04	1.8829E-02	8.4621E+22	9.0139E+14
Cs-136	1.4763E+03	2.0143E-05	8.9193E+19	5.4623E+13
Cs-137	1.3498E+04	1.5518E-01	6.8212E+23	4.9942E+14
Xe-131m	8.7676E+02	1.0467E-05	4.8119E+19	3.2440E+13
Xe-133m	1.0623E+00	2.3675E-09	1.0720E+16	3.9306E+10
Ba-137m	1.4963E+04	2.7822E-08	1.2230E+17	5.5362E+14
Br-82	1.9602E-03	1.8105E-12	1.3297E+13	7.2526E+07

PCS Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.1757E+20	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.0381E+21	0.0000E+00	0.0000E+00
Organic I (atoms)	3.2105E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7403E-01	0.0000E+00	0.0000E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

SG Tube Leakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Xe-131m	9.2043E-02	1.0989E-09	5.0516E+15	3.4056E+09

Environment Transport Group Inventory:

Time (h) = 720.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	4.2276E+07	5.8717E+05	1.2343E+16
Elemental I (atoms)	0.0000E+00	0.0000E+00	1.0893E+17
Organic I (atoms)	0.0000E+00	0.0000E+00	3.3689E+15
Aerosols (kg)	0.0000E+00	0.0000E+00	1.8261E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	3.5347E-06	4.3442E-14	3.0420E+11	1.3078E+05
Sr-89	5.2507E-07	1.8073E-14	1.2229E+11	1.9428E+04
I-131	1.2910E-03	1.0413E-11	4.7869E+13	4.7765E+07
Cs-134	1.0897E-03	8.4223E-10	3.7851E+15	4.0319E+07
Cs-136	6.6034E-05	9.0099E-13	3.9896E+12	2.4433E+06
Cs-137	6.0376E-04	6.9412E-09	3.0511E+16	2.2339E+07
Ba-137m	6.6928E-04	1.2445E-15	5.4703E+09	2.4763E+07
Br-82	8.7678E-11	8.0986E-20	5.9476E+05	3.2441E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.6433E+13
Organic I (atoms)	1.4361E+12
Aerosols (kg)	7.7844E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Xe-131m	1.6586E-08	1.9801E-16	9.1028E+08	6.1367E+02

Control Room Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	9.1028E+08	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	3.7772E-07	4.6421E-15	3.2507E+10	1.3976E+04
Sr-89	5.6109E-08	1.9313E-15	1.3068E+10	2.0760E+03
I-131	1.3795E-04	1.1127E-12	5.1153E+12	5.1042E+06
Cs-134	1.1645E-04	9.0001E-11	4.0448E+14	4.3085E+06
Cs-136	7.0564E-06	9.6280E-14	4.2633E+11	2.6109E+05
Cs-137	6.4517E-05	7.4173E-10	3.2604E+15	2.3871E+06
Ba-137m	7.1519E-05	1.3298E-16	5.8456E+08	2.6462E+06

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	4.9618E+12
Organic I (atoms)	0.0000E+00	1.5346E+11
Aerosols (kg)	0.0000E+00	8.3183E-10

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter

Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	3.5347E-06	4.3442E-14	3.0420E+11	1.3078E+05
Sr-89	5.2507E-07	1.8073E-14	1.2229E+11	1.9428E+04
I-131	1.2910E-03	1.0413E-11	4.7869E+13	4.7765E+07
Cs-134	1.0897E-03	8.4223E-10	3.7851E+15	4.0319E+07
Cs-136	6.6034E-05	9.0099E-13	3.9896E+12	2.4433E+06
Cs-137	6.0376E-04	6.9412E-09	3.0511E+16	2.2339E+07
Ba-137m	6.6928E-04	1.2445E-15	5.4703E+09	2.4763E+07
Br-82	8.7678E-11	8.0986E-20	5.9476E+05	3.2441E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.6433E+13
Organic I (atoms)	1.4361E+12
Aerosols (kg)	7.7844E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	3.9124E-06	4.8084E-14	3.3671E+11	1.4476E+05
Sr-89	5.8118E-07	2.0005E-14	1.3536E+11	2.1504E+04
I-131	1.4289E-03	1.1526E-11	5.2985E+13	5.2869E+07
Cs-134	1.2062E-03	9.3223E-10	4.1896E+15	4.4628E+07
Cs-136	7.3091E-05	9.9727E-13	4.4160E+12	2.7044E+06
Cs-137	6.6827E-04	7.6829E-09	3.3772E+16	2.4726E+07
Ba-137m	7.4080E-04	1.3775E-15	6.0549E+09	2.7409E+07
Br-82	9.7047E-11	8.9640E-20	6.5832E+05	3.5907E+00

SGs Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	4.3139E-01	5.3017E-09	3.7125E+16	1.5961E+10
Sr-89	6.4081E-02	2.2057E-09	1.4925E+16	2.3710E+09
I-131	1.5755E+02	1.2708E-06	5.8421E+18	5.8294E+12
I-133	1.5534E-07	1.3712E-16	6.2089E+08	5.7474E+03
Xe-133	1.5671E+01	8.3722E-08	3.7909E+17	5.7984E+11
Cs-134	1.3299E+02	1.0279E-04	4.6194E+20	4.9207E+12
Cs-136	8.0590E+00	1.0996E-07	4.8690E+17	2.9818E+11
Cs-137	7.3684E+01	8.4712E-04	3.7237E+21	2.7263E+12
Xe-131m	4.7862E+00	5.7141E-08	2.6268E+17	1.7709E+11
Xe-133m	5.7992E-03	1.2924E-11	5.8520E+13	2.1457E+08
Ba-137m	8.1680E+01	1.5188E-10	6.6762E+14	3.0222E+12
Br-82	1.0700E-05	9.8837E-15	7.2587E+10	3.9592E+05

SGs Transport Group Inventory:

```
                                                  Overlying
Time (h) = 720.0000    Atmosphere     Sump         Pool
Noble gases (atoms)    6.4183E+17  0.0000E+00  0.0000E+00
Elemental I (atoms)    5.6668E+18  0.0000E+00  0.0000E+00
Organic I (atoms)      1.7526E+17  0.0000E+00  0.0000E+00
Aerosols (kg)          9.5002E-04  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) = 720.0000     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

SG Tube Leakage Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

SRV/ADV Steam Release Transport Group Inventory:

                        Pathway
Time (h) = 720.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

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Transport Group Totals in Model:
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Noble Gases (atoms)    1.1823E+20
Elemental I (atoms)    1.0439E+21
Organic I   (atoms)    3.2284E+19
Aerosols    (kg)       1.7500E-01
--------------------------------

  37004

#####################################################################
                            I-131 Summary
#####################################################################

                    PCS                Environment          Control Room
Time (hr)    I-131 (Curies)         I-131 (Curies)       I-131 (Curies)
   0.000       3.8163E+03             5.4627E-15           2.0980E-17
   0.000       3.8163E+05             5.4627E-09           2.0980E-11
   0.025       3.8541E+05             1.0301E-03           3.9352E-06
   0.300       3.8495E+05             1.4825E-01           8.7840E-04
   0.306       3.8494E+05             1.5379E-01           9.0953E-04
   0.333       3.8490E+05             1.6722E-01           9.5033E-04
   0.500       3.8462E+05             2.7297E-01           4.3898E-04
   0.760       3.8420E+05             4.8008E-01           1.3901E-04
   1.020       3.8377E+05             7.7200E-01           5.5117E-05
   1.280       3.8334E+05             1.1484E+00           3.4568E-05
   1.540       3.8291E+05             1.6091E+00           3.2577E-05
   1.800       3.8249E+05             2.1535E+00           3.6015E-05
   2.000       3.8216E+05             2.6292E+00           3.9812E-05
   2.260       3.8173E+05             3.3212E+00           3.9036E-05
   2.520       3.8131E+05             4.0960E+00           4.2059E-05
   2.780       3.8088E+05             4.9533E+00           4.6185E-05
   3.040       3.8046E+05             5.8928E+00           5.0623E-05
   3.300       3.8004E+05             6.9141E+00           5.5143E-05
   3.560       3.7961E+05             8.0169E+00           5.9676E-05
   3.820       3.7919E+05             9.2007E+00           6.4202E-05
   4.080       3.7877E+05             1.0465E+01           6.8715E-05
   4.340       3.7835E+05             1.1810E+01           7.3214E-05
   4.600       3.7792E+05             1.3235E+01           7.7698E-05
```

4.860	3.7750E+05	1.4740E+01	8.2168E-05
5.120	3.7708E+05	1.6324E+01	8.6623E-05
5.380	3.7666E+05	1.7988E+01	9.1063E-05
5.640	3.7624E+05	1.9730E+01	9.5488E-05
5.900	3.7583E+05	2.1550E+01	9.9898E-05
6.160	3.7541E+05	2.3448E+01	1.0429E-04
6.420	3.7499E+05	2.5424E+01	1.0867E-04
6.680	3.7457E+05	2.7477E+01	1.1304E-04
6.940	3.7415E+05	2.9608E+01	1.1739E-04
7.200	3.7374E+05	3.1815E+01	1.2173E-04
7.460	3.7332E+05	3.4098E+01	1.2605E-04
7.720	3.7291E+05	3.6457E+01	1.3036E-04
7.980	3.7249E+05	3.8892E+01	1.3465E-04
8.000	3.7246E+05	3.9082E+01	1.3498E-04
8.260	3.7211E+05	3.9046E+01	3.9578E-05
8.520	3.7176E+05	3.9010E+01	1.1604E-05
8.780	3.7142E+05	3.8973E+01	3.4025E-06
9.040	3.7107E+05	3.8937E+01	9.9763E-07
9.300	3.7072E+05	3.8900E+01	2.9251E-07
9.560	3.7038E+05	3.8864E+01	8.5765E-08
9.820	3.7003E+05	3.8828E+01	2.5147E-08
10.080	3.6969E+05	3.8792E+01	7.3731E-09
24.000	3.5165E+05	3.6900E+01	2.1919E-37
96.000	2.7151E+05	2.8490E+01	6.1404-185
720.000	2.8861E+04	3.0284E+00	0.0000E+00

Time (hr)	SGs I-131 (Curies)
0.000	1.3234E-06
0.000	1.3234E-02
0.025	6.6682E+00
0.300	7.9944E+01
0.306	8.1420E+01
0.333	8.8805E+01
0.500	1.3312E+02
0.760	2.0207E+02
1.020	2.7080E+02
1.280	3.3931E+02
1.540	4.0758E+02
1.800	4.7564E+02
2.000	5.2783E+02
2.260	5.9549E+02
2.520	6.6292E+02
2.780	7.3013E+02
3.040	7.9712E+02
3.300	8.6389E+02
3.560	9.3043E+02
3.820	9.9676E+02
4.080	1.0629E+03
4.340	1.1287E+03
4.600	1.1944E+03
4.860	1.2599E+03
5.120	1.3251E+03
5.380	1.3901E+03
5.640	1.4549E+03
5.900	1.5195E+03
6.160	1.5838E+03
6.420	1.6480E+03
6.680	1.7119E+03
6.940	1.7757E+03
7.200	1.8392E+03
7.460	1.9025E+03
7.720	1.9655E+03
7.980	2.0284E+03
8.000	2.0332E+03
8.260	2.0313E+03
8.520	2.0294E+03
8.780	2.0275E+03
9.040	2.0257E+03
9.300	2.0238E+03
9.560	2.0219E+03
9.820	2.0200E+03
10.080	2.0181E+03

24.000	1.9197E+03
96.000	1.4822E+03
720.000	1.5755E+02

```
#####################################################################
                        Cumulative Dose Summary
#####################################################################
```

	EAB		LPZ		Control Room	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	1.5542E-15	6.1948E-17	1.9204E-16	7.6544E-18	1.9596E-20	6.7783E-22
0.000	1.5542E-09	6.1947E-11	1.9204E-10	7.6544E-12	9.7988E-13	3.3894E-14
0.025	2.9307E-04	1.1674E-05	3.6212E-05	1.4425E-06	7.4941E-05	2.5920E-06
0.300	4.2087E-02	1.6547E-03	5.2003E-03	2.0446E-04	1.6753E-01	5.7845E-03
0.306	4.3657E-02	1.7160E-03	5.3943E-03	2.1204E-04	1.7677E-01	6.1034E-03
0.333	4.7467E-02	1.8646E-03	5.8651E-03	2.3040E-04	2.2475E-01	7.7587E-03
0.500	7.7421E-02	3.0263E-03	9.5663E-03	3.7394E-04	4.2969E-01	1.4826E-02
0.760	1.3595E-01	5.2716E-03	1.6799E-02	6.5137E-04	5.5434E-01	1.9119E-02
1.020	2.1821E-01	8.3928E-03	2.6962E-02	1.0370E-03	5.9668E-01	2.0576E-02
1.280	3.2398E-01	1.2370E-02	4.0032E-02	1.5285E-03	6.1690E-01	2.1271E-02
1.540	4.5306E-01	1.7187E-02	5.5981E-02	2.1237E-03	6.3255E-01	2.1809E-02
1.800	6.0524E-01	2.2830E-02	7.4784E-02	2.8210E-03	6.4876E-01	2.2366E-02
2.000	7.3788E-01	2.7725E-02	9.1174E-02	3.4258E-03	6.6257E-01	2.2840E-02
2.260	9.3042E-01	3.4800E-02	1.0200E-01	3.8235E-03	6.8097E-01	2.3471E-02
2.520	1.1455E+00	4.2670E-02	1.1409E-01	4.2659E-03	7.0003E-01	2.4125E-02
2.780	1.3829E+00	5.1326E-02	1.2743E-01	4.7525E-03	7.2076E-01	2.4836E-02
3.040	1.6425E+00	6.0759E-02	1.4203E-01	5.2828E-03	7.4347E-01	2.5614E-02
3.300	1.9240E+00	7.0962E-02	1.5785E-01	5.8563E-03	7.6821E-01	2.6462E-02
3.560	2.2273E+00	8.1927E-02	1.7490E-01	6.4727E-03	7.9499E-01	2.7380E-02
3.820	2.5522E+00	9.3646E-02	1.9317E-01	7.1315E-03	8.2382E-01	2.8368E-02
4.080	2.8986E+00	1.0611E-01	2.1264E-01	7.8324E-03	8.5467E-01	2.9425E-02
4.340	3.2662E+00	1.1932E-01	2.3330E-01	8.5749E-03	8.8752E-01	3.0550E-02
4.600	3.6548E+00	1.3327E-01	2.5515E-01	9.3588E-03	9.2237E-01	3.1744E-02
4.860	4.0644E+00	1.4794E-01	2.7818E-01	1.0184E-02	9.5919E-01	3.3005E-02
5.120	4.4948E+00	1.6333E-01	3.0237E-01	1.1049E-02	9.9798E-01	3.4334E-02
5.380	4.9458E+00	1.7944E-01	3.2772E-01	1.1955E-02	1.0387E+00	3.5729E-02
5.640	5.4172E+00	1.9626E-01	3.5422E-01	1.2900E-02	1.0814E+00	3.7190E-02
5.900	5.9088E+00	2.1379E-01	3.8186E-01	1.3886E-02	1.1259E+00	3.8716E-02
6.160	6.4206E+00	2.3202E-01	4.1063E-01	1.4910E-02	1.1724E+00	4.0308E-02
6.420	6.9524E+00	2.5094E-01	4.4053E-01	1.5974E-02	1.2208E+00	4.1964E-02
6.680	7.5040E+00	2.7054E-01	4.7153E-01	1.7076E-02	1.2710E+00	4.3685E-02
6.940	8.0753E+00	2.9083E-01	5.0365E-01	1.8216E-02	1.3231E+00	4.5469E-02
7.200	8.6662E+00	3.1180E-01	5.3687E-01	1.9395E-02	1.3771E+00	4.7317E-02
7.460	9.2764E+00	3.3344E-01	5.7117E-01	2.0612E-02	1.4328E+00	4.9227E-02
7.720	9.9059E+00	3.5575E-01	6.0656E-01	2.1866E-02	1.4904E+00	5.1199E-02
7.980	1.0555E+01	3.7873E-01	6.4302E-01	2.3157E-02	1.5498E+00	5.3234E-02
8.000	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.5545E+00	5.3393E-02
8.260	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.5893E+00	5.4587E-02
8.520	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.5995E+00	5.4939E-02
8.780	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6025E+00	5.5044E-02
9.040	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6033E+00	5.5077E-02
9.300	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6036E+00	5.5088E-02
9.560	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6037E+00	5.5094E-02
9.820	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6037E+00	5.5097E-02
10.080	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6037E+00	5.5100E-02
24.000	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6037E+00	5.5173E-02
96.000	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6037E+00	5.5187E-02
720.000	1.0605E+01	3.8052E-01	6.4587E-01	2.3258E-02	1.6037E+00	5.5187E-02

```
#####################################################################
                        Worst Two-Hour Dose
                   (Provided for Dose Location 1)
#####################################################################
```

EAB

Time (hr)	Whole Body (rem)	Thyroid (rem)	Skin (rem)	TEDE (rem)
6.0	6.1122E-03	4.4996E+00	9.8480E-03	1.5972E-01

```
#####################################################################
                     30 Day Control Room Skin Dose
#####################################################################
```

Control Room

Time (hr)	Skin (rem)
720.0	1.6792E-02

Attachment 8 Containment Release DNB Dose

```
#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 12:53:47
#######################################################################

#######################################################################
                    File information
#######################################################################

Plant file name           = AST/CRE/pal_CRE_DNB_cont_db_ast.psf
Inventory file name       = AST/CRE/palisades_loca_db_ast.nif
Scenario file name        = AST/CRE/pal_CRE_DNB_cont_db_ast.psf
Release file name         = AST/CRE/pal_cre_dnb_cont_ast.rft
Dose conversion file name = AST/CRE/nai-1101-001rev0.dcf
```

```
     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #
```

```
*RADTRAD-NAI 1.1a(QA)
*18 May 2006 12:53:41
** Palisades CRE Design Basis
** DNB Containment Release Dose
**
*Nuclide inventory file
AST/CRE/palisades_loca_db_ast.nif
*Plant power
810.576
*Compartments
3
*Compartment 1:
Containment
   3
1640000
   0
   0
   1
   0
*Compartment 2:
Environment
   2
2e+20
   0
   0
   0
   0
*Compartment 3:
Control Room
   1
35923
   0
   1
   0
   0
*Pathways
   5
*Pathway 1:
Containment Leakage
   1
   2
   4
*Pathway 2:
```

```
Control Room Unfiltered Makeup
   2
   3
   2
*Pathway 3:
Control Room Filtered Makeup
   2
   3
   2
*Pathway 4:
Control Room Unfiltered Inleakage
   2
   3
   2
*Pathway 5:
Control Room Exhaust
   3
   2
   2
*Sources
   3
   1 1
   2 0
   3 0
*dose conversion factors filename
AST/CRE/nai-1101-001rev0.dcf
*release fraction and timing filename
AST/CRE/pal_cre_dnb_cont_ast.rft
0
   1
   1
*Iodine
0.95 0.0485 0.0015
*Overlying pool
*aerosol model
   0
*elemental model
   0
*organic model
   0
*pH tracking
   0
*Compartment detail
*Compartment 1:
   1
*spray model
0
0
0
*filter model
0
*deposition model
*deposition aerosol model
   1
   2
0 0.1
720 0.1
*deposition elemental model
   1
   2
0 1.3
720 1.3
*Compartment 2:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
```

```
*Compartment 3:
   1
*spray model
0
0
0
*filter model
   1
   3
0 0 99 99 99
0.025 1413.6 99 99 99
720 1413.6 99 99 99
*deposition model
0
0
*Pathways:
*Pathway 1
*convection model
   1
   3
0 0.1
24 0.05
720 0.05
*Pathway 2
*filter efficiency model
   1
   3
0 384.2 0 0 0
0.025 0 0 0 0
720 0 0 0 0
*Pathway 3
*filter efficiency model
   1
   3
0 0 99 99 99
0.025 1413.6 99 99 99
720 1413.6 99 99 99
*Pathway 4
*filter efficiency model
   1
   3
0 0 0 0 0
0.025 10 0 0 0
720 10 0 0 0
*Pathway 5
*filter efficiency model
   1
   3
0 384.2 0 0 0
0.025 1423.6 0 0 0
720 1423.6 0 0 0
*x/q tables
   4
EAB
   2
0 0.000539
720 0.000539
LPZ
   6
0 6.66e-05
2 3.03e-05
8 2.04e-05
24 8.67e-06
96 2.54e-06
720 2.54e-06
Control Room Unfiltered
   6
0 0.0143
2 0.0111
8 0.00413
24 0.00323
96 0.00249
720 0.00249
```

```
Control Room Emergency
   6
0 0.000726
2 0.000618
8 0.000247
24 0.000177
96 0.00013
720 0.00013
*dose locations
   3
*location name, compartment number and x/q table
EAB
   2
   1
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
LPZ
   2
   2
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
Control Room
   3
   0
*br model
   1
   2
0 0.00035
720 0.00035
*of model
   1
   4
0 1
24 0.6
96 0.4
720 0.4
*location x/q input to be included
   1
*number of intake combinations
   3
*intake combinations
2 1 3
3 1 4
4 1 3
*time step count
   3
0 1e-06
0.001 0.02
720 0.02
*show plant, scenario, event, step, model
   1
   1
   1
```

```
  0
  1

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 12:53:47
#######################################################################

#######################################################################
                     Plant Description
#######################################################################

Number of Nuclides = 107

Inventory Power =   2.7030E+03 MWth
Plant Power Level =   8.1058E+02 MWth

Number of compartments    =   3

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00)
Name: Containment
Compartment volume =   1.6400E+06 (Cubic feet)
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
    Pathway to compartment number   2: Containment Leakage

Compartment number  2
Name: Environment
Pathways into and out of compartment  2
    Pathway to compartment number   3: Control Room Unfiltered Makeup
    Pathway to compartment number   3: Control Room Filtered Makeup
    Pathway to compartment number   3: Control Room Unfiltered Inleakage
    Pathway from compartment number 1: Containment Leakage
    Pathway from compartment number 3: Control Room Exhaust

Compartment number  3
Name: Control Room
Compartment volume =   3.5923E+04 (Cubic feet)
Removal devices within compartment:
     Filter(s)
Pathways into and out of compartment  3
    Pathway to compartment number   2: Control Room Exhaust
    Pathway from compartment number 2: Control Room Unfiltered Makeup
    Pathway from compartment number 2: Control Room Filtered Makeup
    Pathway from compartment number 2: Control Room Unfiltered Inleakage

Total number of pathways =   5


#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 12:53:47
#######################################################################

#######################################################################
                     Scenario Description
#######################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Iodine fractions
     Aerosol     =   9.5000E-01
     Elemental   =   4.8500E-02
     Organic     =   1.5000E-03

COMPARTMENT DATA

Compartment number   1: Containment

     Natural Deposition: Aerosol data
      Time (hr)          Removal Coef. (hr^-1)
```

```
       0.0000E+00          1.0000E-01
       7.2000E+02          1.0000E-01

     Natural Deposition:  Elemental Removal Data
      Time (hr)          Removal Coef. (hr^-1)
       0.0000E+00          1.3000E+00
       7.2000E+02          1.3000E+00

Compartment number   2: Environment

Compartment number   3: Control Room

     Compartment Filter Data

      Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   9.9000E+01   9.9000E+01   9.9000E+01
       2.5000E-02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01
       7.2000E+02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01

PATHWAY DATA

Pathway number  1: Containment Leakage

     Convection Data
      Time (hr)          Flow Rate (% / day)
       0.0000E+00              1.0000E-01
       2.4000E+01              5.0000E-02
       7.2000E+02              5.0000E-02

Pathway number  2: Control Room Unfiltered Makeup

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    3.8420E+02   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  3: Control Room Filtered Makeup

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   9.9000E+01   9.9000E+01   9.9000E+01
       2.5000E-02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01
       7.2000E+02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01

Pathway number  4: Control Room Unfiltered Inleakage

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    1.0000E+01   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    1.0000E+01   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  5: Control Room Exhaust

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    3.8420E+02   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    1.4236E+03   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    1.4236E+03   0.0000E+00   0.0000E+00   0.0000E+00

X/Q DATA

X/Q table   1: EAB
```

```
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          5.3900E-04
       7.2000E+02          5.3900E-04

X/Q table   2: LPZ
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          6.6600E-05
       2.0000E+00          3.0300E-05
       8.0000E+00          2.0400E-05
       2.4000E+01          8.6700E-06
       9.6000E+01          2.5400E-06
       7.2000E+02          2.5400E-06

X/Q table   3: Control Room Unfiltered
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          1.4300E-02
       2.0000E+00          1.1100E-02
       8.0000E+00          4.1300E-03
       2.4000E+01          3.2300E-03
       9.6000E+01          2.4900E-03
       7.2000E+02          2.4900E-03

X/Q table   4: Control Room Emergency
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          7.2600E-04
       2.0000E+00          6.1800E-04
       8.0000E+00          2.4700E-04
       2.4000E+01          1.7700E-04
       9.6000E+01          1.3000E-04
       7.2000E+02          1.3000E-04

LOCATION DATA

     Location EAB is in compartment   2

     Using X/Q Table   1

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location LPZ is in compartment   2

     Using X/Q Table   2

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location Control Room is in compartment   3

     Inleakage X/Q Table Assignments
     Inleakage Path   Source Path  X/Q Table
            2              1           3
            3              1           4
            4              1           3

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       7.2000E+02                3.5000E-04

     Location Occupancy Factor Data
      Time (hr)         Occupancy Factor
       0.0000E+00           1.0000E+00
       2.4000E+01           6.0000E-01
       9.6000E+01           4.0000E-01
```

```
       7.2000E+02            4.0000E-01

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
      0.0000E+00       1.0000E-06
      1.0000E-03       2.0000E-02
      7.2000E+02       2.0000E-02

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 12:53:47
#######################################################################



     ####   #    #  #####  #####   #    #  #####
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #####   #    #    #
    #    #  #    #    #    #       #    #    #
    #    #  #    #    #    #       #    #    #
     ####    ####     #    #        ####     #


#################################################################
           Dose, Detailed Model and Detailed Inventory Output
#################################################################

Detailed model information at time (H) =    0.0001

EAB Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.2405E-05  1.3402E-03  2.1234E-05  7.3416E-05
Accumulated dose (rem)  1.2405E-05  1.3402E-03  2.1234E-05  7.3416E-05

LPZ Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.5328E-06  1.6559E-04  2.6238E-06  9.0715E-06
Accumulated dose (rem)  1.5328E-06  1.6559E-04  2.6238E-06  9.0715E-06

Control Room Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.0850E-10  7.6254E-07  1.2082E-08  3.4923E-08
Accumulated dose (rem)  2.0850E-10  7.6254E-07  1.2082E-08  3.4923E-08

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0001       Ci           kg         Atoms         Bq
Kr-85                  3.1547E+04  8.0409E-02  5.6969E+23  1.1673E+15
Kr-85m                 5.8416E+05  7.0983E-05  5.0291E+20  2.1614E+16
Kr-87                  1.1263E+06  3.9762E-05  2.7523E+20  4.1673E+16
Kr-88                  1.5851E+06  1.2641E-04  8.6509E+20  5.8650E+16
Rb-86                  7.0495E+03  8.6638E-05  6.0668E+20  2.6083E+14
Sr-89                  7.1647E-02  2.4661E-09  1.6687E+16  2.6509E+09
I-131                  2.2440E+06  1.8100E-02  8.3208E+22  8.3027E+16
I-132                  3.2026E+06  3.1027E-04  1.4155E+21  1.1850E+17
I-133                  4.3842E+06  3.8702E-03  1.7524E+22  1.6222E+17
I-134                  4.8038E+06  1.8007E-04  8.0928E+20  1.7774E+17
I-135                  4.1143E+06  1.1715E-03  5.2261E+21  1.5223E+17
Xe-133                 4.3962E+06  2.3486E-02  1.0635E+23  1.6266E+17
Xe-135                 1.4071E+06  5.5098E-04  2.4578E+21  5.2061E+16
Cs-134                 7.3302E+05  5.6655E-01  2.5462E+24  2.7122E+16
Cs-136                 2.1134E+05  2.8836E-03  1.2769E+22  7.8197E+15
Cs-137                 3.9584E+05  4.5508E+00  2.0004E+25  1.4646E+16
I-130                  1.1224E+05  5.7551E-05  2.6660E+20  4.1530E+15
Kr-83m                 2.7346E+05  1.3254E-05  9.6167E+19  1.0118E+16
Xe-138                 3.6305E+06  3.7756E-05  1.6476E+20  1.3433E+17
Xe-131m                2.5028E+04  2.9880E-04  1.3736E+21  9.2604E+14
Xe-133m                1.3971E+05  3.1137E-04  1.4099E+21  5.1694E+15
```

Xe-135m	8.9927E+05	9.8721E-06	4.4038E+19	3.3273E+16
Cs-138	4.8219E+06	1.1396E-04	4.9728E+20	1.7841E+17
Cs-134m	1.7704E+05	2.1954E-05	9.8664E+19	6.5506E+15
Rb-88	1.9320E+06	1.6095E-05	1.1014E+20	7.1485E+16
Rb-89	2.4805E+06	1.7846E-05	1.2076E+20	9.1779E+16
Ba-137m	3.0801E+02	5.7273E-10	2.5176E+15	1.1397E+13
Br-82	1.5840E+04	1.4630E-05	1.0745E+20	5.8606E+14
Br-83	2.7294E+05	1.7277E-05	1.2536E+20	1.0099E+16
Br-84	4.7704E+05	6.7771E-06	4.8586E+19	1.7651E+16

Containment Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.8322E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	5.2732E+21	0.0000E+00	0.0000E+00
Organic I (atoms)	1.6310E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1431E+00	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.4273E+17	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	2.5713E-05	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	6.5547E-05	1.6707E-10	1.1837E+15	2.4252E+06
Kr-85m	1.2137E-03	1.4748E-13	1.0449E+12	4.4908E+07
Kr-87	2.3401E-03	8.2615E-14	5.7186E+11	8.6584E+07
Kr-88	3.2935E-03	2.6265E-13	1.7974E+12	1.2186E+08
Rb-86	1.4647E-05	1.8001E-13	1.2605E+12	5.4194E+05
Sr-89	1.9798E-10	6.8146E-18	4.6111E+07	7.3252E+00
I-131	4.6624E-03	3.7608E-11	1.7288E+14	1.7251E+08
I-132	6.6542E-03	6.4465E-13	2.9410E+12	2.4621E+08
I-133	9.1092E-03	8.0412E-12	3.6410E+13	3.3704E+08
I-134	9.9809E-03	3.7414E-13	1.6814E+12	3.6929E+08
I-135	8.5484E-03	2.4341E-12	1.0858E+13	3.1629E+08
Xe-133	9.1342E-03	4.8798E-11	2.2096E+14	3.3796E+08
Xe-135	2.9235E-03	1.1448E-12	5.1067E+12	1.0817E+08
Cs-134	1.5230E-03	1.1771E-09	5.2902E+15	5.6352E+07
Cs-136	4.3911E-04	5.9914E-12	2.6530E+13	1.6247E+07
Cs-137	8.2245E-04	9.4554E-09	4.1563E+16	3.0431E+07
I-130	2.3321E-04	1.1958E-13	5.5392E+11	8.6288E+06
Kr-83m	5.6818E-04	2.7538E-14	1.9981E+11	2.1023E+07
Xe-138	7.5431E-03	7.8447E-14	3.4233E+11	2.7910E+08
Xe-131m	5.2001E-05	6.2083E-13	2.8540E+12	1.9240E+06
Xe-133m	2.9029E-04	6.4694E-13	2.9293E+12	1.0741E+07
Xe-135m	1.8684E-03	2.0511E-14	9.1498E+10	6.9132E+07
Cs-138	1.0019E-02	2.3677E-13	1.0332E+12	3.7069E+08
Cs-134m	3.6785E-04	4.5614E-14	2.0500E+11	1.3610E+07
Rb-88	4.0142E-03	3.3441E-14	2.2885E+11	1.4852E+08
Rb-89	5.1538E-03	3.7080E-14	2.5090E+11	1.9069E+08
Ba-137m	8.5106E-07	1.5825E-18	6.9561E+06	3.1489E+04
Br-82	3.2910E-05	3.0398E-14	2.2325E+11	1.2177E+06
Br-83	5.6710E-04	3.5897E-14	2.6046E+11	2.0983E+07
Br-84	9.9117E-04	1.4081E-14	1.0095E+11	3.6673E+07

Environment Transport Group Inventory:

Time (h) = 0.0001	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.8252E+13	7.8477E+15	1.4196E+15
Elemental I (atoms)	2.1805E+11	6.0569E+13	1.0956E+13
Organic I (atoms)	6.7442E+09	1.8734E+12	3.3887E+11
Aerosols (kg)	2.1267E-10	5.9075E-08	1.0686E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter

Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	1.7041E-07	4.3435E-13	3.0773E+12	6.3052E+03
Kr-85m	3.1555E-06	3.8343E-16	2.7166E+09	1.1675E+05
Kr-87	6.0840E-06	2.1479E-16	1.4868E+09	2.2511E+05
Kr-88	8.5625E-06	6.8286E-16	4.6730E+09	3.1681E+05
Rb-86	3.8080E-08	4.6800E-16	3.2772E+09	1.4090E+03
Sr-89	5.1474E-13	1.7718E-20	1.1989E+05	1.9045E-02
I-131	1.2122E-05	9.7774E-14	4.4947E+11	4.4850E+05
I-132	1.7300E-05	1.6760E-15	7.6463E+09	6.4010E+05
I-133	2.3683E-05	2.0906E-14	9.4661E+10	8.7625E+05
I-134	2.5949E-05	9.7272E-16	4.3715E+09	9.6011E+05
I-135	2.2224E-05	6.3284E-15	2.8230E+10	8.2231E+05
Xe-133	2.3748E-05	1.2687E-13	5.7445E+11	8.7866E+05
Xe-135	7.6006E-06	2.9763E-15	1.3277E+10	2.8122E+05
Cs-134	3.9596E-06	3.0604E-12	1.3754E+13	1.4651E+05
Cs-136	1.1416E-06	1.5577E-14	6.8974E+10	4.2240E+04
Cs-137	2.1382E-06	2.4583E-11	1.0806E+14	7.9115E+04
I-130	6.0632E-07	3.1088E-16	1.4401E+09	2.2434E+04
Kr-83m	1.4772E-06	7.1596E-17	5.1947E+08	5.4655E+04
Xe-138	1.9611E-05	2.0395E-16	8.9002E+08	7.2561E+05
Xe-131m	1.3520E-07	1.6141E-15	7.4199E+09	5.0022E+03
Xe-133m	7.5470E-07	1.6820E-15	7.6158E+09	2.7924E+04
Xe-135m	4.8576E-06	5.3327E-17	2.3788E+08	1.7973E+05
Cs-138	2.6047E-05	6.1556E-16	2.6862E+09	9.6374E+05
Cs-134m	9.5635E-07	1.1859E-16	5.3296E+08	3.5385E+04
Rb-88	1.0436E-05	8.6941E-17	5.9497E+08	3.8614E+05
Rb-89	1.3399E-05	9.6403E-17	6.5230E+08	4.9577E+05
Br-82	8.5562E-08	7.9031E-17	5.8041E+08	3.1658E+03
Br-83	1.4744E-06	9.3328E-17	6.7715E+08	5.4552E+04
Br-84	2.5769E-06	3.6608E-17	2.6245E+08	9.5345E+04

Control Room Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	3.6906E+12	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.8485E+10	0.0000E+00	0.0000E+00
Organic I (atoms)	8.8102E+08	0.0000E+00	0.0000E+00
Aerosols (kg)	2.7782E-11	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Detailed model information at time (H) = 0.0250

EAB Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	6.2100E-03	6.7272E-01	1.0629E-02	3.6842E-02
Accumulated dose (rem)	6.2224E-03	6.7406E-01	1.0650E-02	3.6915E-02

LPZ Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	7.6732E-04	8.3123E-02	1.3133E-03	4.5523E-03
Accumulated dose (rem)	7.6886E-04	8.3288E-02	1.3160E-03	4.5613E-03

Control Room Doses:

Time (h) = 0.0250	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.8808E-05	1.4264E-01	2.2484E-03	6.5333E-03
Accumulated dose (rem)	3.8809E-05	1.4264E-01	2.2484E-03	6.5333E-03

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Kr-85	3.1863E+04	8.1213E-02	5.7539E+23	1.1789E+15
Kr-85m	5.8773E+05	7.1417E-05	5.0598E+20	2.1746E+16
Kr-87	1.1222E+06	3.9618E-05	2.7424E+20	4.1522E+16
Kr-88	1.5913E+06	1.2690E-04	8.6845E+20	5.8877E+16
Rb-86	7.1021E+03	8.7284E-05	6.1120E+20	2.6278E+14
Sr-89	3.4474E+01	1.1866E-06	8.0293E+18	1.2755E+12

I-131	2.2574E+06	1.8208E-02	8.3704E+22	8.3523E+16
I-132	3.1979E+06	3.0981E-04	1.4134E+21	1.1832E+17
I-133	4.4071E+06	3.8904E-03	1.7615E+22	1.6306E+17
I-134	4.7387E+06	1.7763E-04	7.9831E+20	1.7533E+17
I-135	4.1284E+06	1.1756E-03	5.2440E+21	1.5275E+17
Xe-133	4.4402E+06	2.3721E-02	1.0741E+23	1.6429E+17
Xe-135	1.4268E+06	5.5871E-04	2.4923E+21	5.2791E+16
Cs-134	7.3851E+05	5.7079E-01	2.5652E+24	2.7325E+16
Cs-136	2.1291E+05	2.9050E-03	1.2864E+22	7.8778E+15
Cs-137	3.9880E+05	4.5849E+00	2.0154E+25	1.4756E+16
I-130	1.1277E+05	5.7818E-05	2.6784E+20	4.1723E+15
Kr-83m	2.7619E+05	1.3386E-05	9.7126E+19	1.0219E+16
Xe-138	3.4084E+06	3.5446E-05	1.5468E+20	1.2611E+17
Xe-131m	2.5278E+04	3.0179E-04	1.3873E+21	9.3529E+14
Xe-133m	1.4111E+05	3.1448E-04	1.4239E+21	5.2210E+15
Xe-135m	8.9152E+05	9.7870E-06	4.3658E+19	3.2986E+16
Cs-138	4.8173E+06	1.1384E-04	4.9680E+20	1.7824E+17
Cs-134m	1.7731E+05	2.1987E-05	9.8813E+19	6.5605E+15
Rb-88	1.9283E+06	1.6064E-05	1.0993E+20	7.1346E+16
Rb-89	2.3345E+06	1.6796E-05	1.1365E+20	8.6376E+16
Ba-137m	1.4233E+05	2.6466E-07	1.1634E+18	5.2664E+15
Br-82	1.5928E+04	1.4712E-05	1.0804E+20	5.8932E+14
Br-83	2.7262E+05	1.7257E-05	1.2521E+20	1.0087E+16
Br-84	4.6455E+05	6.5996E-06	4.7314E+19	1.7188E+16

Containment Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.9004E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	5.1532E+21	0.0000E+00	0.0000E+00
Organic I (atoms)	1.6463E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1816E+00	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.6989E+20	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.2944E-02	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Kr-85	3.3038E-02	8.4209E-08	5.9661E+17	1.2224E+09
Kr-85m	6.0941E-01	7.4052E-11	5.2465E+14	2.2548E+10
Kr-87	1.1636E+00	4.1080E-11	2.8435E+14	4.3054E+10
Kr-88	1.6500E+00	1.3159E-10	9.0048E+14	6.1049E+10
Rb-86	7.3732E-03	9.0617E-11	6.3454E+14	2.7281E+08
Sr-89	3.5791E-05	1.2319E-12	8.3359E+12	1.3243E+06
I-131	2.3452E+00	1.8917E-08	8.6962E+16	8.6773E+10
I-132	3.3224E+00	3.2187E-10	1.4685E+15	1.2293E+11
I-133	4.5786E+00	4.0418E-09	1.8301E+16	1.6941E+11
I-134	4.9231E+00	1.8455E-10	8.2938E+14	1.8215E+11
I-135	4.2891E+00	1.2213E-09	5.4481E+15	1.5870E+11
Xe-133	4.6040E+00	2.4596E-08	1.1137E+17	1.7035E+11
Xe-135	1.4794E+00	5.7931E-10	2.5842E+15	5.4738E+10
Cs-134	7.6671E-01	5.9259E-07	2.6632E+18	2.8368E+10
Cs-136	2.2104E-01	3.0160E-09	1.3355E+16	8.1786E+09
Cs-137	4.1403E-01	4.7600E-06	2.0924E+19	1.5319E+10
I-130	1.1715E-01	6.0069E-11	2.7826E+14	4.3347E+09
Kr-83m	2.8637E-01	1.3880E-11	1.0071E+14	1.0596E+10
Xe-138	3.5341E+00	3.6754E-11	1.6039E+14	1.3076E+11
Xe-131m	2.6211E-02	3.1292E-10	1.4385E+15	9.6980E+08
Xe-133m	1.4631E-01	3.2608E-10	1.4764E+15	5.4135E+09
Xe-135m	9.2435E-01	1.0147E-11	4.5266E+13	3.4201E+10
Cs-138	5.0011E+00	1.1819E-10	5.1576E+14	1.8504E+11
Cs-134m	1.8408E-01	2.2827E-11	1.0259E+14	6.8110E+09
Rb-88	2.0018E+00	1.6676E-11	1.1412E+14	7.4067E+10
Rb-89	2.4236E+00	1.7437E-11	1.1799E+14	8.9675E+10
Ba-137m	1.4777E-01	2.7477E-13	1.2078E+12	5.4675E+09
Br-82	1.6548E-02	1.5284E-11	1.1225E+14	6.1226E+08
Br-83	2.8323E-01	1.7928E-11	1.3008E+14	1.0479E+10

Br-84	4.8263E-01	6.8565E-12	4.9156E+13	1.7857E+10

Environment Transport Group Inventory:

Time (h) = 0.0250	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	1.4339E+17	2.0964E+15	7.1550E+17
Elemental I (atoms)	1.0743E+15	1.5706E+13	5.4309E+15
Organic I (atoms)	3.4210E+13	5.0015E+11	1.7070E+14
Aerosols (kg)	1.0770E-06	1.5746E-08	5.3794E-06

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Kr-85	8.5202E-05	2.1717E-10	1.5386E+15	3.1525E+06
Kr-85m	1.5716E-03	1.9097E-13	1.3530E+12	5.8149E+07
Kr-87	3.0008E-03	1.0594E-13	7.3332E+11	1.1103E+08
Kr-88	4.2551E-03	3.3934E-13	2.3222E+12	1.5744E+08
Rb-86	1.9015E-05	2.3369E-13	1.6364E+12	7.0355E+05
Sr-89	9.2300E-08	3.1770E-15	2.1497E+10	3.4151E+03
I-131	6.0481E-03	4.8785E-11	2.2427E+14	2.2378E+08
I-132	8.5681E-03	8.3007E-13	3.7870E+12	3.1702E+08
I-133	1.1808E-02	1.0423E-11	4.7196E+13	4.3689E+08
I-134	1.2696E-02	4.7592E-13	2.1389E+12	4.6976E+08
I-135	1.1061E-02	3.1496E-12	1.4050E+13	4.0926E+08
Xe-133	1.1873E-02	6.3431E-11	2.8721E+14	4.3931E+08
Xe-135	3.8152E-03	1.4940E-12	6.6644E+12	1.4116E+08
Cs-134	1.9773E-03	1.5282E-09	6.8680E+15	7.3159E+07
Cs-136	5.7004E-04	7.7778E-12	3.4441E+13	2.1092E+07
Cs-137	1.0677E-03	1.2275E-08	5.3959E+16	3.9506E+07
I-130	3.0213E-04	1.5491E-13	7.1761E+11	1.1179E+07
Kr-83m	7.3853E-04	3.5795E-14	2.5971E+11	2.7325E+07
Xe-138	9.1141E-03	9.4785E-14	4.1363E+11	3.3722E+08
Xe-131m	6.7595E-05	8.0699E-13	3.7098E+12	2.5010E+06
Xe-133m	3.7732E-04	8.4092E-13	3.8076E+12	1.3961E+07
Xe-135m	2.3838E-03	2.6169E-14	1.1674E+11	8.8200E+07
Cs-138	1.2897E-02	3.0480E-13	1.3301E+12	4.7720E+08

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Cs-134m                4.7473E-04  5.8867E-14  2.6456E+11  1.7565E+07
Rb-88                  5.1625E-03  4.3007E-14  2.9431E+11  1.9101E+08
Rb-89                  6.2503E-03  4.4969E-14  3.0428E+11  2.3126E+08
Ba-137m                3.8108E-04  7.0859E-16  3.1148E+09  1.4100E+07
Br-82                  4.2674E-05  3.9417E-14  2.8948E+11  1.5789E+06
Br-83                  7.3041E-04  4.6235E-14  3.3546E+11  2.7025E+07
Br-84                  1.2447E-03  1.7682E-14  1.2677E+11  4.6052E+07

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =   0.0250    Atmosphere     Sump        Pool
Noble gases (atoms)    1.8452E+15  0.0000E+00  0.0000E+00
Elemental I (atoms)    1.4005E+13  0.0000E+00  0.0000E+00
Organic I (atoms)      4.4023E+11  0.0000E+00  0.0000E+00
Aerosols (kg)          1.3873E-08  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0250     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    2.0000

EAB Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.6822E-01  4.6342E+01  4.5789E-01  2.3959E+00
Accumulated dose (rem)  2.7444E-01  4.7016E+01  4.6854E-01  2.4328E+00

LPZ Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        3.3141E-02  5.7261E+00  5.6578E-02  2.9604E-01
Accumulated dose (rem)  3.3910E-02  5.8094E+00  5.7894E-02  3.0060E-01
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Control Room Doses:

Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.6330E-03	6.6184E+00	1.6668E-01	3.0616E-01
Accumulated dose (rem)	2.6718E-03	6.7610E+00	1.6893E-01	3.1269E-01

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	3.1861E+04	8.1210E-02	5.7536E+23	1.1789E+15
Kr-85m	4.3295E+05	5.2609E-05	3.7273E+20	1.6019E+16
Kr-87	3.8240E+05	1.3500E-05	9.3448E+19	1.4149E+16
Kr-88	9.8258E+05	7.8360E-05	5.3625E+20	3.6355E+16
Rb-86	5.8110E+03	7.1416E-05	5.0009E+20	2.1501E+14
Sr-89	4.2657E+02	1.4683E-05	9.9350E+19	1.5783E+13
I-131	1.7616E+06	1.4209E-02	6.5319E+22	6.5177E+16
I-132	1.3860E+06	1.3427E-04	6.1257E+20	5.1281E+16
I-133	3.2430E+06	2.8628E-03	1.2962E+22	1.1999E+17
I-134	7.8137E+05	2.9290E-05	1.3163E+20	2.8911E+16
I-135	2.6376E+06	7.5106E-04	3.3504E+21	9.7592E+16
Xe-133	4.4383E+06	2.3711E-02	1.0736E+23	1.6422E+17
Xe-135	1.7581E+06	6.8844E-04	3.0710E+21	6.5049E+16
Cs-134	6.0607E+05	4.6843E-01	2.1052E+24	2.2425E+16
Cs-136	1.7398E+05	2.3738E-03	1.0511E+22	6.4373E+15
Cs-137	3.2730E+05	3.7629E+00	1.6541E+25	1.2110E+16
I-130	7.9332E+04	4.0676E-05	1.8843E+20	2.9353E+15
Kr-83m	2.3701E+05	1.1487E-05	8.3347E+19	8.7692E+15
Xe-138	1.0353E+04	1.0767E-07	4.6986E+17	3.8307E+14
Xe-131m	2.5275E+04	3.0175E-04	1.3872E+21	9.3518E+14
Xe-133m	1.4066E+05	3.1348E-04	1.4194E+21	5.2044E+15
Xe-135m	5.5543E+05	6.0974E-06	2.7200E+19	2.0551E+16
Cs-138	4.8483E+05	1.1458E-05	5.0001E+19	1.7939E+16
Cs-134m	9.0764E+04	1.1255E-05	5.0582E+19	3.3583E+15
Rb-88	1.0744E+06	8.9508E-06	6.1253E+19	3.9754E+16
Rb-89	8.6206E+03	6.2023E-08	4.1967E+17	3.1896E+14
Ba-137m	3.6282E+05	6.7464E-07	2.9655E+18	1.3424E+16
Br-82	1.2042E+04	1.1122E-05	8.1684E+19	4.4554E+14
Br-83	1.2083E+05	7.6484E-06	5.5494E+19	4.4706E+15
Br-84	2.7583E+04	3.9186E-07	2.8093E+18	1.0206E+15

Containment Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.8971E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.8056E+20	0.0000E+00	0.0000E+00
Organic I (atoms)	1.5846E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	4.2517E+00	0.0000E+00	0.0000E+00

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.7435E+21	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	9.4136E-01	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	2.6548E+00	6.7668E-06	4.7942E+19	9.8229E+10
Kr-85m	3.6075E+01	4.3836E-09	3.1057E+16	1.3348E+12
Kr-87	3.1863E+01	1.1249E-09	7.7865E+15	1.1789E+12
Kr-88	8.1873E+01	6.5294E-09	4.4683E+16	3.0293E+12
Rb-86	5.3579E-01	6.5848E-09	4.6110E+16	1.9824E+10
Sr-89	3.9331E-02	1.3538E-09	9.1605E+15	1.4552E+09
I-131	1.6488E+02	1.3300E-06	6.1139E+18	6.1006E+12
I-132	1.2973E+02	1.2568E-08	5.7337E+16	4.7998E+12
I-133	3.0354E+02	2.6795E-07	1.2133E+18	1.1231E+13
I-134	7.3136E+01	2.7415E-09	1.2321E+16	2.7060E+12
I-135	2.4688E+02	7.0299E-08	3.1359E+17	9.1345E+12
Xe-133	3.6966E+02	1.9749E-06	8.9421E+18	1.3677E+13
Xe-135	1.4473E+02	5.6672E-08	2.5281E+17	5.3549E+12

Cs-134	5.5882E+01	4.3191E-05	1.9411E+20	2.0676E+12
Cs-136	1.6042E+01	2.1888E-07	9.6920E+17	5.9354E+11
Cs-137	3.0178E+01	3.4695E-04	1.5251E+21	1.1166E+12
I-130	7.4254E+00	3.8073E-09	1.7637E+16	2.7474E+11
Kr-83m	1.9346E+01	9.3768E-10	6.8034E+15	7.1581E+11
Xe-138	8.6268E-01	8.9718E-12	3.9152E+13	3.1919E+10
Xe-131m	2.1056E+00	2.5138E-08	1.1556E+17	7.7908E+10
Xe-133m	1.1709E+01	2.6095E-08	1.1816E+17	4.3323E+11
Xe-135m	4.2294E+01	4.6430E-10	2.0712E+15	1.5649E+12
Cs-138	4.4474E+01	1.0510E-09	4.5866E+15	1.6456E+12
Cs-134m	8.3688E+00	1.0378E-09	4.6638E+15	3.0965E+11
Rb-88	9.2730E+01	7.7250E-10	5.2865E+15	3.4310E+12
Rb-89	7.9485E-01	5.7187E-12	3.8695E+13	2.9410E+10
Ba-137m	3.3454E+01	6.2204E-11	2.7343E+14	1.2378E+12
Br-82	1.1271E+00	1.0411E-09	7.6456E+15	4.1702E+10
Br-83	1.1309E+01	7.1589E-10	5.1942E+15	4.1845E+11
Br-84	2.5818E+00	3.6678E-11	2.6295E+14	9.5526E+10

Environment Transport Group Inventory:

Time (h) = 2.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	5.7476E+17	7.9827E+15	5.7463E+19
Elemental I (atoms)	3.2113E+14	4.4602E+12	1.5194E+17
Organic I (atoms)	1.3198E+14	1.8331E+12	1.3198E+16
Aerosols (kg)	3.5448E-06	4.9234E-08	3.9202E-04

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	2.5352E-04	3.1157E-12	2.1818E+13	9.3801E+06
Sr-89	1.8610E-05	6.4057E-13	4.3344E+12	6.8857E+05
I-131	7.7983E-02	6.2903E-10	2.8917E+15	2.8854E+09
I-132	6.1356E-02	5.9441E-12	2.7118E+13	2.2702E+09
I-133	1.4357E-01	1.2673E-10	5.7384E+14	5.3119E+09
I-134	3.4591E-02	1.2967E-12	5.8274E+12	1.2799E+09
I-135	1.1677E-01	3.3249E-11	1.4832E+14	4.3203E+09
Cs-134	2.6441E-02	2.0436E-08	9.1844E+16	9.7832E+08
Cs-136	7.5903E-03	1.0356E-10	4.5859E+14	2.8084E+08
Cs-137	1.4279E-02	1.6416E-07	7.2162E+17	5.2833E+08
I-130	3.5120E-03	1.8007E-12	8.3417E+12	1.2994E+08
Cs-138	1.8858E-02	4.4567E-13	1.9448E+12	6.9775E+08
Cs-134m	3.9598E-03	4.9103E-13	2.2067E+12	1.4651E+08
Rb-88	9.9286E-03	8.2712E-14	5.6603E+11	3.6736E+08
Rb-89	3.7610E-04	2.7059E-15	1.8309E+10	1.3916E+07
Ba-137m	1.5829E-02	2.9433E-14	1.2938E+11	5.8567E+08
Br-82	5.3308E-04	4.9239E-13	3.6161E+12	1.9724E+07
Br-83	5.3490E-03	3.3859E-13	2.4567E+12	1.9791E+08
Br-84	1.2211E-03	1.7348E-14	1.2437E+11	4.5181E+07

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	7.0387E+13
Organic I (atoms)	6.2529E+12
Aerosols (kg)	1.8549E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00

Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	3.0607E-04	7.8013E-10	5.5271E+15	1.1325E+07
Kr-85m	4.1591E-03	5.0538E-13	3.5806E+12	1.5388E+08
Kr-87	3.6735E-03	1.2969E-13	8.9770E+11	1.3592E+08
Kr-88	9.4390E-03	7.5276E-13	5.1514E+12	3.4924E+08
Rb-86	3.7960E-06	4.6653E-14	3.2669E+11	1.4045E+05
Sr-89	2.7866E-07	9.5916E-15	6.4901E+10	1.0310E+04
I-131	1.1526E-03	9.2968E-12	4.2738E+13	4.2645E+07
I-132	9.0682E-04	8.7852E-14	4.0080E+11	3.3552E+07
I-133	2.1218E-03	1.8731E-12	8.4812E+12	7.8508E+07
I-134	5.1124E-04	1.9164E-14	8.6127E+10	1.8916E+07
I-135	1.7258E-03	4.9141E-13	2.1921E+12	6.3853E+07
Xe-133	4.2852E-02	2.2893E-10	1.0366E+15	1.5855E+09
Xe-135	1.9178E-02	7.5097E-12	3.3500E+13	7.0957E+08
Cs-134	3.9592E-04	3.0600E-10	1.3752E+15	1.4649E+07
Cs-136	1.1365E-04	1.5507E-12	6.8667E+12	4.2052E+06
Cs-137	2.1381E-04	2.4581E-09	1.0805E+16	7.9110E+06
I-130	5.1906E-05	2.6614E-14	1.2329E+11	1.9205E+06
Kr-83m	2.8281E-03	1.3707E-13	9.9453E+11	1.0464E+08
Xe-138	9.9457E-05	1.0343E-15	4.5137E+09	3.6799E+06
Xe-131m	2.4339E-04	2.9057E-12	1.3358E+13	9.0054E+06
Xe-133m	1.3666E-03	3.0457E-12	1.3791E+13	5.0565E+07
Xe-135m	1.3070E-02	1.4348E-13	6.4005E+11	4.8359E+08
Cs-138	3.5731E-04	8.4443E-15	3.6850E+10	1.3221E+07
Cs-134m	5.9292E-05	7.3524E-15	3.3043E+10	2.1938E+06
Rb-88	3.9276E-03	3.2719E-14	2.2391E+11	1.4532E+08
Rb-89	5.6315E-06	4.0516E-17	2.7415E+08	2.0836E+05
Ba-137m	2.3701E-04	4.4071E-16	1.9372E+09	8.7695E+06
Br-82	7.8787E-06	7.2773E-15	5.3445E+10	2.9151E+05
Br-83	7.9057E-05	5.0043E-15	3.6309E+10	2.9251E+06
Br-84	1.8048E-05	2.5639E-16	1.8381E+09	6.6776E+05

Control Room Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.6356E+15	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.3667E+11	0.0000E+00	0.0000E+00
Organic I (atoms)	1.0131E+11	0.0000E+00	0.0000E+00
Aerosols (kg)	2.7775E-09	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	2.6478E-05	3.2542E-13	2.2787E+12	9.7970E+05
Sr-89	1.9437E-06	6.6904E-14	4.5270E+11	7.1917E+04
I-131	8.2387E-03	6.6455E-11	3.0550E+14	3.0483E+08
I-132	6.4821E-03	6.2798E-13	2.8650E+12	2.3984E+08
I-133	1.5167E-02	1.3389E-11	6.0625E+13	5.6119E+08
I-134	3.6544E-03	1.3699E-13	6.1565E+11	1.3521E+08
I-135	1.2336E-02	3.5127E-12	1.5670E+13	4.5643E+08
Cs-134	2.7616E-03	2.1345E-09	9.5925E+15	1.0218E+08
Cs-136	7.9277E-04	1.0817E-11	4.7897E+13	2.9332E+07
Cs-137	1.4914E-03	1.7146E-08	7.5369E+16	5.5181E+07
I-130	3.7103E-04	1.9024E-13	8.8128E+11	1.3728E+07
Cs-138	2.4149E-03	5.7071E-14	2.4905E+11	8.9352E+07
Cs-134m	4.1358E-04	5.1285E-14	2.3048E+11	1.5302E+07
Rb-88	3.9277E-03	3.2721E-14	2.2392E+11	1.4533E+08

Rb-89	3.9281E-05	2.8261E-16	1.9123E+09	1.4534E+06
Ba-137m	1.6532E-03	3.0741E-15	1.3513E+10	6.1170E+07
Br-82	5.6318E-05	5.2019E-14	3.8203E+11	2.0838E+06
Br-83	5.6511E-04	3.5772E-14	2.5954E+11	2.0909E+07
Br-84	1.2901E-04	1.8327E-15	1.3139E+10	4.7733E+06

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	1.1783E+13
Organic I (atoms)	0.0000E+00	6.2754E+11
Aerosols (kg)	0.0000E+00	1.9373E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	2.5352E-04	3.1157E-12	2.1818E+13	9.3801E+06
Sr-89	1.8610E-05	6.4057E-13	4.3344E+12	6.8857E+05
I-131	7.7983E-02	6.2903E-10	2.8917E+15	2.8854E+09
I-132	6.1356E-02	5.9441E-12	2.7118E+13	2.2702E+09
I-133	1.4357E-01	1.2673E-10	5.7384E+14	5.3119E+09
I-134	3.4591E-02	1.2967E-12	5.8274E+12	1.2799E+09
I-135	1.1677E-01	3.3249E-11	1.4832E+14	4.3203E+09
Cs-134	2.6441E-02	2.0436E-08	9.1844E+16	9.7832E+08
Cs-136	7.5903E-03	1.0356E-10	4.5859E+14	2.8084E+08
Cs-137	1.4279E-02	1.6416E-07	7.2162E+17	5.2833E+08
I-130	3.5120E-03	1.8007E-12	8.3417E+12	1.2994E+08
Cs-138	1.8858E-02	4.4567E-13	1.9448E+12	6.9775E+08
Cs-134m	3.9598E-03	4.9103E-13	2.2067E+12	1.4651E+08
Rb-88	9.9286E-03	8.2712E-14	5.6603E+11	3.6736E+08
Rb-89	3.7610E-04	2.7059E-15	1.8309E+10	1.3916E+07
Ba-137m	1.5829E-02	2.9433E-14	1.2938E+11	5.8567E+08
Br-82	5.3308E-04	4.9239E-13	3.6161E+12	1.9724E+07
Br-83	5.3490E-03	3.3859E-13	2.4567E+12	1.9791E+08
Br-84	1.2211E-03	1.7348E-14	1.2437E+11	4.5181E+07

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	7.0387E+13
Organic I (atoms)	6.2529E+12
Aerosols (kg)	1.8549E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	2.7999E-04	3.4411E-12	2.4096E+13	1.0360E+07
Sr-89	2.0554E-05	7.0747E-13	4.7871E+12	7.6049E+05
I-131	8.6222E-02	6.9548E-10	3.1972E+15	3.1902E+09
I-132	6.7838E-02	6.5721E-12	2.9983E+13	2.5100E+09
I-133	1.5873E-01	1.4012E-10	6.3446E+14	5.8731E+09
I-134	3.8245E-02	1.4337E-12	6.4430E+12	1.4151E+09
I-135	1.2910E-01	3.6762E-11	1.6399E+14	4.7768E+09
Cs-134	2.9203E-02	2.2571E-08	1.0144E+17	1.0805E+09
Cs-136	8.3831E-03	1.1438E-10	5.0648E+14	3.1017E+08
Cs-137	1.5771E-02	1.8131E-07	7.9699E+17	5.8351E+08
I-130	3.8830E-03	1.9910E-12	9.2229E+12	1.4367E+08
Cs-138	2.1273E-02	5.0274E-13	2.1939E+12	7.8711E+08
Cs-134m	4.3734E-03	5.4231E-13	2.4372E+12	1.6182E+08
Rb-88	1.3856E-02	1.1543E-13	7.8995E+11	5.1269E+08
Rb-89	4.1538E-04	2.9885E-15	2.0221E+10	1.5369E+07
Ba-137m	1.7482E-02	3.2507E-14	1.4289E+11	6.4684E+08
Br-82	5.8939E-04	5.4440E-13	3.9981E+12	2.1808E+07
Br-83	5.9141E-03	3.7437E-13	2.7162E+12	2.1882E+08
Br-84	1.3501E-03	1.9180E-14	1.3751E+11	4.9954E+07

Detailed model information at time (H) = 8.0000

EAB Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.3690E-01	8.9311E+01	4.1563E-01	4.3966E+00
Accumulated dose (rem)	5.1134E-01	1.3633E+02	8.8418E-01	6.8294E+00

LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.3318E-02	5.0206E+00	2.3365E-02	2.4716E-01
Accumulated dose (rem)	4.7228E-02	1.0830E+01	8.1259E-02	5.4776E-01

Control Room Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.1937E-03	7.2834E+00	2.1093E-01	3.4324E-01
Accumulated dose (rem)	5.8655E-03	1.4044E+01	3.7986E-01	6.5593E-01

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Kr-85	3.1855E+04	8.1192E-02	5.7524E+23	1.1786E+15
Kr-85m	1.7106E+05	2.0787E-05	1.4727E+20	6.3294E+15
Kr-87	1.4524E+04	5.1275E-07	3.5492E+18	5.3738E+14
Kr-88	2.2713E+05	1.8114E-05	1.2396E+20	8.4039E+15
Rb-86	3.1589E+03	3.8822E-05	2.7185E+20	1.1688E+14
Sr-89	2.3423E+02	8.0624E-06	5.4554E+19	8.6665E+12
I-131	9.4305E+05	7.6068E-03	3.4969E+22	3.4893E+16
I-132	1.2430E+05	1.2042E-05	5.4937E+19	4.5989E+15
I-133	1.4525E+06	1.2822E-03	5.8056E+21	5.3741E+16
I-134	3.7203E+03	1.3946E-07	6.2674E+17	1.3765E+14
I-135	7.6906E+05	2.1899E-04	9.7688E+20	2.8455E+16
Xe-133	4.4159E+06	2.3592E-02	1.0682E+23	1.6339E+17
Xe-135	2.0149E+06	7.8900E-04	3.5196E+21	7.4551E+16
Cs-134	3.3246E+05	2.5696E-01	1.1548E+24	1.2301E+16
Cs-136	9.4205E+04	1.2854E-03	5.6916E+21	3.4856E+15
Cs-137	1.7958E+05	2.0646E+00	9.0752E+24	6.6444E+15
I-130	3.0997E+04	1.5893E-05	7.3623E+19	1.1469E+15
Kr-83m	7.2313E+04	3.5049E-06	2.5430E+19	2.6756E+15
Xe-138	2.3284E-04	2.4215E-15	1.0567E+10	8.6152E+06
Xe-131m	2.5261E+04	3.0158E-04	1.3864E+21	9.3464E+14
Xe-133m	1.3820E+05	3.0799E-04	1.3945E+21	5.1132E+15
Xe-135m	2.9550E+05	3.2439E-06	1.4471E+19	1.0933E+16
Cs-138	1.1672E+02	2.7584E-09	1.2037E+16	4.3187E+12
Cs-134m	1.1869E+04	1.4718E-06	6.6143E+18	4.3915E+14
Rb-88	2.4801E+05	2.0661E-06	1.4139E+19	9.1763E+15
Rb-89	3.5091E-04	2.5247E-15	1.7083E+10	1.2984E+07
Ba-137m	1.9907E+05	3.7015E-07	1.6271E+18	7.3655E+15
Br-82	5.8548E+03	5.4079E-06	3.9716E+19	2.1663E+14

Br-83	1.1600E+04	7.3426E-07	5.3275E+18	4.2919E+14
Br-84	5.8988E+00	8.3800E-11	6.0078E+14	2.1825E+11

Containment Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.8867E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.4447E+17	0.0000E+00	0.0000E+00
Organic I (atoms)	1.4681E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	2.3320E+00	0.0000E+00	0.0000E+00

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.7484E+21	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	2.8584E+00	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Kr-85	1.0620E+01	2.7068E-05	1.9177E+20	3.9293E+11
Kr-85m	5.7029E+01	6.9298E-09	4.9097E+16	2.1101E+12
Kr-87	4.8420E+00	1.7094E-10	1.1832E+15	1.7915E+11
Kr-88	7.5721E+01	6.0387E-09	4.1325E+16	2.8017E+12
Rb-86	1.6126E+00	1.9818E-08	1.3878E+17	5.9665E+10
Sr-89	1.1957E-01	4.1158E-09	2.7849E+16	4.4242E+09
I-131	4.8426E+02	3.9061E-06	1.7957E+19	1.7918E+13
I-132	6.3826E+01	6.1834E-09	2.8210E+16	2.3616E+12
I-133	7.4584E+02	6.5840E-07	2.9812E+18	2.7596E+13
I-134	1.9104E+00	7.1611E-11	3.2183E+14	7.0683E+10
I-135	3.9491E+02	1.1245E-07	5.0163E+17	1.4612E+13
Xe-133	1.4657E+03	7.8305E-06	3.5456E+19	5.4232E+13
Xe-135	6.2362E+02	2.4420E-07	1.0893E+18	2.3074E+13
Cs-134	1.6972E+02	1.3118E-04	5.8953E+20	6.2797E+12
Cs-136	4.8091E+01	6.5617E-07	2.9055E+18	1.7794E+12
Cs-137	9.1674E+01	1.0539E-03	4.6329E+21	3.3919E+12
I-130	1.5917E+01	8.1611E-09	3.7806E+16	5.8893E+11
Kr-83m	2.1231E+01	1.0290E-09	7.4662E+15	7.8555E+11
Xe-131m	8.4015E+00	1.0030E-07	4.6110E+17	3.1085E+11
Xe-133m	4.5618E+01	1.0167E-07	4.6033E+17	1.6879E+12
Xe-135m	6.7549E+01	7.4155E-10	3.3079E+15	2.4993E+12
Cs-138	5.9428E-02	1.4045E-12	6.1288E+12	2.1989E+09
Cs-134m	6.0590E+00	7.5133E-10	3.3766E+15	2.2418E+11
Rb-88	8.6314E+01	7.1905E-10	4.9207E+15	3.1936E+12
Ba-137m	1.0162E+02	1.8896E-10	8.3062E+14	3.7601E+12
Br-82	3.0065E+00	2.7770E-09	2.0394E+16	1.1124E+11
Br-83	5.9564E+00	3.7704E-10	2.7357E+15	2.2039E+11
Br-84	3.0290E-03	4.3031E-14	3.0850E+11	1.1207E+08

Environment Transport Group Inventory:

Time (h) = 8.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	5.7389E+17	7.9707E+15	2.2934E+20
Elemental I (atoms)	1.2192E+11	1.6933E+09	1.5210E+17
Organic I (atoms)	1.2229E+14	1.6984E+12	4.8922E+16
Aerosols (kg)	1.9444E-06	2.7006E-08	1.1905E-03

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	6.9290E-04	8.5157E-12	5.9631E+13	2.5637E+07

Sr-89	5.1379E-05	1.7685E-12	1.1967E+13	1.9010E+06
I-131	2.0817E-01	1.6792E-09	7.7192E+15	7.7024E+09
I-132	2.7438E-02	2.6581E-12	1.2127E+13	1.0152E+09
I-133	3.2063E-01	2.8304E-10	1.2816E+15	1.1863E+10
I-134	8.2123E-04	3.0784E-14	1.3835E+11	3.0385E+07
I-135	1.6977E-01	4.8341E-11	2.1564E+14	6.2814E+09
Cs-134	7.2927E-02	5.6365E-08	2.5331E+17	2.6983E+09
Cs-136	2.0664E-02	2.8195E-10	1.2485E+15	7.6457E+08
Cs-137	3.9391E-02	4.5287E-07	1.9907E+18	1.4575E+09
I-130	6.8424E-03	3.5083E-12	1.6252E+13	2.5317E+08
Cs-138	2.4410E-05	5.7687E-16	2.5174E+09	9.0316E+05
Cs-134m	2.6035E-03	3.2284E-13	1.4509E+12	9.6328E+07
Rb-88	1.9720E-03	1.6428E-14	1.1242E+11	7.2965E+07
Ba-137m	4.3666E-02	8.1194E-14	3.5690E+11	1.6156E+09
Br-82	1.2924E-03	1.1938E-12	8.7672E+12	4.7820E+07
Br-83	2.5606E-03	1.6208E-13	1.1760E+12	9.4741E+07
Br-84	1.3021E-06	1.8498E-17	1.3262E+08	4.8179E+04

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	6.9842E+13
Organic I (atoms)	2.0777E+13
Aerosols (kg)	5.1152E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Kr-85	2.5939E-04	6.6115E-10	4.6842E+15	9.5975E+06
Kr-85m	1.3930E-03	1.6927E-13	1.1992E+12	5.1540E+07
Kr-87	1.1827E-04	4.1753E-15	2.8902E+10	4.3759E+06
Kr-88	1.8495E-03	1.4750E-13	1.0094E+12	6.8433E+07
Rb-86	1.6116E-06	1.9806E-14	1.3869E+11	5.9628E+04
Sr-89	1.1950E-07	4.1133E-15	2.7832E+10	4.4215E+03
I-131	4.8109E-04	3.8805E-12	1.7839E+13	1.7800E+07
I-132	6.3408E-05	6.1429E-15	2.8025E+10	2.3461E+06
I-133	7.4096E-04	6.5409E-13	2.9617E+12	2.7416E+07
I-134	1.8979E-06	7.1143E-17	3.1972E+08	7.0221E+04
I-135	3.9233E-04	1.1172E-13	4.9835E+11	1.4516E+07
Xe-133	3.6679E-02	1.9596E-10	8.8727E+14	1.3571E+09
Xe-135	2.1452E-02	8.4001E-12	3.7472E+13	7.9371E+08
Cs-134	1.6962E-04	1.3110E-10	5.8916E+14	6.2758E+06
Cs-136	4.8061E-05	6.5576E-13	2.9037E+12	1.7783E+06
Cs-137	9.1617E-05	1.0533E-09	4.6300E+15	3.3898E+06
I-130	1.5813E-05	8.1077E-15	3.7558E+10	5.8507E+05
Kr-83m	9.7929E-04	4.7464E-14	3.4438E+11	3.6234E+07
Xe-131m	2.0803E-04	2.4836E-12	1.1417E+13	7.6971E+06
Xe-133m	1.1767E-03	2.6225E-12	1.1875E+13	4.3540E+07
Xe-135m	1.7147E-02	1.8824E-13	8.3970E+11	6.3444E+08
Cs-138	5.9550E-08	1.4073E-18	6.1413E+06	2.2033E+03
Cs-134m	6.0552E-06	7.5087E-16	3.3745E+09	2.2404E+05
Rb-88	7.6453E-04	6.3690E-15	4.3586E+10	2.8288E+07
Ba-137m	1.0156E-04	1.8884E-16	8.3010E+08	3.7577E+06

Br-82	2.9868E-06	2.7588E-15	2.0261E+10	1.1051E+05
Br-83	5.9174E-06	3.7457E-16	2.7178E+09	2.1895E+05
Br-84	3.0092E-09	4.2750E-20	3.0648E+05	1.1134E+02

Control Room Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.6356E+15	0.0000E+00	0.0000E+00
Elemental I (atoms)	9.9602E+07	0.0000E+00	0.0000E+00
Organic I (atoms)	7.3311E+10	0.0000E+00	0.0000E+00
Aerosols (kg)	1.1897E-09	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	5.7615E-05	7.0809E-13	4.9584E+12	2.1318E+06
Sr-89	4.2722E-06	1.4705E-13	9.9502E+11	1.5807E+05
I-131	1.7433E-02	1.4062E-10	6.4642E+14	6.4502E+08
I-132	2.2977E-03	2.2260E-13	1.0155E+12	8.5015E+07
I-133	2.6850E-02	2.3702E-11	1.0732E+14	9.9345E+08
I-134	6.8772E-05	2.5780E-15	1.1586E+10	2.5446E+06
I-135	1.4217E-02	4.0482E-12	1.8058E+13	5.2602E+08
Cs-134	6.0639E-03	4.6868E-09	2.1063E+16	2.2437E+08
Cs-136	1.7182E-03	2.3444E-11	1.0381E+14	6.3575E+07
Cs-137	3.2754E-03	3.7656E-08	1.6553E+17	1.2119E+08
I-130	5.7300E-04	2.9380E-13	1.3610E+12	2.1201E+07
Cs-138	2.2204E-06	5.2475E-17	2.2899E+08	8.2157E+04
Cs-134m	2.1648E-04	2.6844E-14	1.2064E+11	8.0098E+06
Rb-88	8.0480E-04	6.7045E-15	4.5881E+10	2.9778E+07
Ba-137m	3.6309E-03	6.7513E-15	2.9677E+10	1.3434E+08
Br-82	1.0823E-04	9.9970E-14	7.3419E+11	4.0046E+06
Br-83	2.1443E-04	1.3573E-14	9.8482E+10	7.9338E+06
Br-84	1.0904E-07	1.5491E-18	1.1106E+07	4.0346E+03

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	1.1391E+13
Organic I (atoms)	0.0000E+00	1.6200E+12
Aerosols (kg)	0.0000E+00	4.2533E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	6.9290E-04	8.5157E-12	5.9631E+13	2.5637E+07
Sr-89	5.1379E-05	1.7685E-12	1.1967E+13	1.9010E+06
I-131	2.0817E-01	1.6792E-09	7.7192E+15	7.7024E+09
I-132	2.7438E-02	2.6581E-12	1.2127E+13	1.0152E+09
I-133	3.2063E-01	2.8304E-10	1.2816E+15	1.1863E+10
I-134	8.2123E-04	3.0784E-14	1.3835E+11	3.0385E+07
I-135	1.6977E-01	4.8341E-11	2.1564E+14	6.2814E+09
Cs-134	7.2927E-02	5.6365E-08	2.5331E+17	2.6983E+09
Cs-136	2.0664E-02	2.8195E-10	1.2485E+15	7.6457E+08
Cs-137	3.9391E-02	4.5287E-07	1.9907E+18	1.4575E+09
I-130	6.8424E-03	3.5083E-12	1.6252E+13	2.5317E+08
Cs-138	2.4410E-05	5.7687E-16	2.5174E+09	9.0316E+05
Cs-134m	2.6035E-03	3.2284E-13	1.4509E+12	9.6328E+07
Rb-88	1.9720E-03	1.6428E-14	1.1242E+11	7.2965E+07
Ba-137m	4.3666E-02	8.1194E-14	3.5690E+11	1.6156E+09
Br-82	1.2924E-03	1.1938E-12	8.7672E+12	4.7820E+07
Br-83	2.5606E-03	1.6208E-13	1.1760E+12	9.4741E+07
Br-84	1.3021E-06	1.8498E-17	1.3262E+08	4.8179E+04

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	6.9842E+13
Organic I (atoms)	2.0777E+13
Aerosols (kg)	5.1152E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 8.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	7.5052E-04	9.2238E-12	6.4590E+13	2.7769E+07
Sr-89	5.5651E-05	1.9156E-12	1.2962E+13	2.0591E+06
I-131	2.2561E-01	1.8198E-09	8.3656E+15	8.3474E+09
I-132	2.9735E-02	2.8807E-12	1.3143E+13	1.1002E+09
I-133	3.4748E-01	3.0674E-10	1.3889E+15	1.2857E+10
I-134	8.9000E-04	3.3362E-14	1.4994E+11	3.2930E+07
I-135	1.8398E-01	5.2389E-11	2.3370E+14	6.8074E+09
Cs-134	7.8991E-02	6.1052E-08	2.7438E+17	2.9227E+09
Cs-136	2.2382E-02	3.0539E-10	1.3523E+15	8.2814E+08
Cs-137	4.2667E-02	4.9052E-07	2.1562E+18	1.5787E+09
I-130	7.4154E-03	3.8021E-12	1.7613E+13	2.7437E+08
Cs-138	2.6630E-05	6.2934E-16	2.7464E+09	9.8532E+05
Cs-134m	2.8200E-03	3.4968E-13	1.5715E+12	1.0434E+08
Rb-88	2.7768E-03	2.3133E-14	1.5831E+11	1.0274E+08
Ba-137m	4.7297E-02	8.7945E-14	3.8658E+11	1.7500E+09
Br-82	1.4007E-03	1.2937E-12	9.5014E+12	5.1824E+07
Br-83	2.7750E-03	1.7566E-13	1.2745E+12	1.0267E+08
Br-84	1.4112E-06	2.0048E-17	1.4373E+08	5.2213E+04

Detailed model information at time (H) = 24.0000

EAB Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.4068E-01	4.0433E+01	2.7123E-01	2.0758E+00
Accumulated dose (rem)	6.5202E-01	1.7676E+02	1.1554E+00	8.9052E+00

LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	5.3243E-03	1.5303E+00	1.0266E-02	7.8563E-02
Accumulated dose (rem)	5.2552E-02	1.2360E+01	9.1525E-02	6.2632E-01

Control Room Doses:

Time (h) = 24.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	2.1301E-03	2.4756E+00	1.4188E-01	1.2065E-01
Accumulated dose (rem)	7.9956E-03	1.6520E+01	5.2175E-01	7.7659E-01

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	3.1831E+04	8.1133E-02	5.7481E+23	1.1778E+15

Kr-85m	1.4380E+04	1.7474E-06	1.2380E+19	5.3207E+14
Kr-87	2.3673E+00	8.3576E-11	5.7851E+14	8.7592E+10
Kr-88	4.5714E+03	3.6457E-07	2.4948E+18	1.6914E+14
Rb-86	6.2175E+02	7.6412E-06	5.3508E+19	2.3005E+13
Sr-89	4.6828E+01	1.6119E-06	1.0907E+19	1.7326E+12
I-131	1.8213E+05	1.4691E-03	6.7535E+21	6.7388E+15
I-132	2.0471E+02	1.9832E-08	9.0479E+16	7.5743E+12
I-133	1.7432E+05	1.5389E-04	6.9678E+20	6.4499E+15
I-134	2.4395E-03	9.1446E-14	4.1097E+11	9.0261E+07
I-135	2.9383E+04	8.3669E-06	3.7324E+19	1.0872E+15
Xe-133	4.2663E+06	2.2792E-02	1.0320E+23	1.5785E+17
Xe-135	1.1168E+06	4.3732E-04	1.9508E+21	4.1321E+16
Cs-134	6.7038E+04	5.1813E-02	2.3286E+23	2.4804E+15
Cs-136	1.8348E+04	2.5035E-04	1.1085E+21	6.7888E+14
Cs-137	3.6231E+04	4.1653E-01	1.8310E+24	1.3405E+15
I-130	2.5849E+03	1.3254E-06	6.1396E+18	9.5641E+13
Kr-83m	1.0177E+03	4.9327E-08	3.5790E+17	3.7656E+13
Xe-131m	2.5186E+04	3.0069E-04	1.3823E+21	9.3190E+14
Xe-133m	1.2618E+05	2.8122E-04	1.2733E+21	4.6688E+15
Xe-135m	5.5185E+04	6.0581E-07	2.7024E+18	2.0418E+15
Cs-138	2.4957E-08	5.8979E-19	2.5738E+06	9.2339E+02
Cs-134m	5.2287E+01	6.4837E-09	2.9139E+16	1.9346E+12
Rb-88	4.9915E+03	4.1583E-08	2.8456E+17	1.8469E+14
Ba-137m	4.0163E+04	7.4679E-08	3.2827E+17	1.4860E+15
Br-82	8.7474E+02	8.0797E-07	5.9338E+18	3.2365E+13
Br-83	2.2908E+01	1.4501E-09	1.0521E+16	8.4760E+11
Br-84	9.8599E-10	1.4007E-20	1.0042E+05	3.6481E+01

Containment Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.8264E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.1693E+08	0.0000E+00	0.0000E+00
Organic I (atoms)	1.2830E+20	0.0000E+00	0.0000E+00
Aerosols (kg)	4.7021E-01	0.0000E+00	0.0000E+00

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.1526E+21	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	4.7162E+00	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	3.1847E+01	8.1173E-05	5.7510E+20	1.1783E+12
Kr-85m	1.4387E+01	1.7482E-09	1.2386E+16	5.3233E+11
Kr-87	2.3685E-03	8.3617E-14	5.7880E+11	8.7635E+07
Kr-88	4.5736E+00	3.6475E-10	2.4961E+15	1.6922E+11
Rb-86	2.5975E+00	3.1923E-08	2.2354E+17	9.6106E+10
Sr-89	1.9563E-01	6.7339E-09	4.5564E+16	7.2385E+09
I-131	7.5421E+02	6.0836E-06	2.7967E+19	2.7906E+13
I-132	8.4773E-01	8.2127E-11	3.7468E+14	3.1366E+10
I-133	7.2188E+02	6.3725E-07	2.8854E+18	2.6710E+13
I-134	1.0102E-05	3.7868E-16	1.7019E+09	3.7378E+05
I-135	1.2168E+02	3.4648E-08	1.5456E+17	4.5021E+12
Xe-133	4.1898E+03	2.2384E-05	1.0135E+20	1.5502E+14
Xe-135	9.2785E+02	3.6333E-07	1.6208E+18	3.4330E+13
Cs-134	2.8006E+02	2.1646E-04	9.7280E+20	1.0362E+13
Cs-136	7.6653E+01	1.0459E-06	4.6312E+18	2.8362E+12
Cs-137	1.5136E+02	1.7401E-03	7.6492E+21	5.6003E+12
I-130	1.0704E+01	5.4884E-09	2.5425E+16	3.9606E+11
Kr-83m	6.5581E-01	3.1786E-11	2.3063E+14	2.4265E+10
Xe-131m	2.4857E+01	2.9676E-07	1.3642E+18	9.1971E+11
Xe-133m	1.2094E+02	2.6953E-07	1.2204E+18	4.4748E+12
Xe-135m	2.0807E+01	2.2841E-10	1.0189E+15	7.6985E+11
Cs-134m	2.1844E-01	2.7087E-11	1.2173E+14	8.0822E+09
Rb-88	5.2228E+00	4.3510E-11	2.9775E+14	1.9324E+11
Ba-137m	1.6779E+02	3.1199E-10	1.3714E+15	6.2081E+12
Br-82	3.6224E+00	3.3459E-09	2.4572E+16	1.3403E+11
Br-83	9.4864E-02	6.0049E-12	4.3569E+13	3.5100E+09

Environment Transport Group Inventory:

Time (h) = 24.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	5.6886E+17	7.9009E+15	6.8067E+20
Elemental I (atoms)	9.8701E+01	1.3708E+00	1.3302E+17
Organic I (atoms)	1.0690E+14	1.4847E+12	1.2833E+17
Aerosols (kg)	3.9217E-07	5.4468E-09	1.9644E-03

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	8.4309E-04	1.0362E-11	7.2556E+13	3.1194E+07
Sr-89	6.3499E-05	2.1857E-12	1.4789E+13	2.3495E+06
I-131	2.4501E-01	1.9763E-09	9.0850E+15	9.0653E+09
I-132	2.7538E-04	2.6679E-14	1.2172E+11	1.0189E+07
I-133	2.3450E-01	2.0701E-10	9.3733E+14	8.6766E+09
I-134	3.2817E-09	1.2302E-19	5.5285E+05	1.2142E+02
I-135	3.9528E-02	1.1255E-11	5.0209E+13	1.4625E+09
Cs-134	9.0903E-02	7.0259E-08	3.1575E+17	3.3634E+09
Cs-136	2.4880E-02	3.3947E-10	1.5032E+15	9.2056E+08
Cs-137	4.9129E-02	5.6482E-07	2.4828E+18	1.8178E+09
I-130	3.4773E-03	1.7829E-12	8.2592E+12	1.2866E+08
Cs-134m	7.0901E-05	8.7919E-15	3.9512E+10	2.6233E+06
Rb-88	1.5863E-05	1.3215E-16	9.0435E+08	5.8694E+05
Ba-137m	5.4461E-02	1.0127E-13	4.4513E+11	2.0150E+09
Br-82	1.1767E-03	1.0869E-12	7.9823E+12	4.3539E+07
Br-83	3.0817E-05	1.9507E-15	1.4153E+10	1.1402E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	6.1077E+13
Organic I (atoms)	3.2128E+13
Aerosols (kg)	6.3761E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	1.0279E-04	2.6200E-10	1.8562E+15	3.8032E+06
Kr-85m	4.6437E-05	5.6427E-15	3.9978E+10	1.7182E+06
Kr-87	7.6447E-09	2.6989E-19	1.8681E+06	2.8285E+02
Kr-88	1.4762E-05	1.1773E-15	8.0564E+09	5.4619E+05

Rb-86	1.1866E-07	1.4583E-15	1.0212E+10	4.3904E+03
Sr-89	8.9372E-09	3.0763E-16	2.0815E+09	3.3068E+02
I-131	3.4747E-05	2.8027E-13	1.2884E+12	1.2856E+06
I-132	3.9055E-08	3.7836E-18	1.7262E+07	1.4450E+03
I-133	3.3257E-05	2.9358E-14	1.3293E+11	1.2305E+06
I-135	5.6058E-06	1.5963E-15	7.1206E+09	2.0742E+05
Xe-133	1.4351E-02	7.6670E-11	3.4716E+14	5.3100E+08
Xe-135	4.8888E-03	1.9144E-12	8.5398E+12	1.8089E+08
Cs-134	1.2794E-05	9.8886E-12	4.4441E+13	4.7338E+05
Cs-136	3.5017E-06	4.7779E-14	2.1157E+11	1.2956E+05
Cs-137	6.9146E-06	7.9495E-11	3.4944E+14	2.5584E+05
I-130	4.9315E-07	2.5285E-16	1.1713E+09	1.8247E+04
Kr-83m	8.4000E-06	4.0713E-16	2.9540E+09	3.1080E+05
Xe-131m	8.4322E-05	1.0067E-12	4.6278E+12	3.1199E+06
Xe-133m	4.4846E-04	9.9946E-13	4.5255E+12	1.6593E+07
Xe-135m	3.8493E-03	4.2257E-14	1.8850E+11	1.4242E+08
Cs-134m	9.9790E-09	1.2374E-18	5.5611E+06	3.6922E+02
Rb-88	6.0641E-06	5.0518E-17	3.4571E+08	2.2437E+05
Ba-137m	7.6651E-06	1.4253E-17	6.2650E+07	2.8361E+05
Br-82	1.6688E-07	1.5415E-16	1.1321E+09	6.1747E+03
Br-83	4.3704E-09	2.7665E-19	2.0072E+06	1.6171E+02

Control Room Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.2213E+15	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.0157E-02	0.0000E+00	0.0000E+00
Organic I (atoms)	2.3967E+10	0.0000E+00	0.0000E+00
Aerosols (kg)	8.9740E-11	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	6.7663E-05	8.3157E-13	5.8231E+12	2.5035E+06
Sr-89	5.0962E-06	1.7542E-13	1.1869E+12	1.8856E+05
I-131	1.9780E-02	1.5955E-10	7.3346E+14	7.3187E+08
I-132	2.2233E-05	2.1539E-15	9.8265E+09	8.2261E+05
I-133	1.8932E-02	1.6713E-11	7.5674E+13	7.0049E+08
I-135	3.1912E-03	9.0869E-13	4.0535E+12	1.1807E+08
Cs-134	7.2955E-03	5.6387E-09	2.5341E+16	2.6994E+08
Cs-136	1.9968E-03	2.7245E-11	1.2064E+14	7.3881E+07
Cs-137	3.9429E-03	4.5330E-08	1.9926E+17	1.4589E+08
I-130	2.8073E-04	1.4394E-13	6.6679E+11	1.0387E+07
Cs-134m	5.6903E-06	7.0561E-16	3.1711E+09	2.1054E+05
Rb-88	6.3810E-06	5.3158E-17	3.6378E+08	2.3610E+05
Ba-137m	4.3708E-03	8.1272E-15	3.5725E+10	1.6172E+08
Br-82	9.5001E-05	8.7750E-14	6.4444E+11	3.5150E+06
Br-83	2.4879E-06	1.5749E-16	1.1427E+09	9.2054E+04

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	9.9612E+12
Organic I (atoms)	0.0000E+00	2.3333E+12
Aerosols (kg)	0.0000E+00	5.1172E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	8.4309E-04	1.0362E-11	7.2556E+13	3.1194E+07
Sr-89	6.3499E-05	2.1857E-12	1.4789E+13	2.3495E+06
I-131	2.4501E-01	1.9763E-09	9.0850E+15	9.0653E+09
I-132	2.7538E-04	2.6679E-14	1.2172E+11	1.0189E+07

I-133	2.3450E-01	2.0701E-10	9.3733E+14	8.6766E+09
I-134	3.2817E-09	1.2302E-19	5.5285E+05	1.2142E+02
I-135	3.9528E-02	1.1255E-11	5.0209E+13	1.4625E+09
Cs-134	9.0903E-02	7.0259E-08	3.1575E+17	3.3634E+09
Cs-136	2.4880E-02	3.3947E-10	1.5032E+15	9.2056E+08
Cs-137	4.9129E-02	5.6482E-07	2.4828E+18	1.8178E+09
I-130	3.4773E-03	1.7829E-12	8.2592E+12	1.2866E+08
Cs-134m	7.0901E-05	8.7919E-15	3.9512E+10	2.6233E+06
Rb-88	1.5863E-05	1.3215E-16	9.0435E+08	5.8694E+05
Ba-137m	5.4461E-02	1.0127E-13	4.4513E+11	2.0150E+09
Br-82	1.1767E-03	1.0869E-12	7.9823E+12	4.3539E+07
Br-83	3.0817E-05	1.9507E-15	1.4153E+10	1.1402E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	6.1077E+13
Organic I (atoms)	3.2128E+13
Aerosols (kg)	6.3761E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	9.1075E-04	1.1193E-11	7.8379E+13	3.3698E+07
Sr-89	6.8595E-05	2.3611E-12	1.5976E+13	2.5380E+06
I-131	2.6479E-01	2.1358E-09	9.8185E+15	9.7971E+09
I-132	2.9762E-04	2.8833E-14	1.3154E+11	1.1012E+07
I-133	2.5344E-01	2.2372E-10	1.0130E+15	9.3771E+09
I-134	3.5466E-09	1.3295E-19	5.9748E+05	1.3122E+02
I-135	4.2719E-02	1.2164E-11	5.4262E+13	1.5806E+09
Cs-134	9.8199E-02	7.5898E-08	3.4109E+17	3.6334E+09
Cs-136	2.6877E-02	3.6671E-10	1.6238E+15	9.9444E+08
Cs-137	5.3072E-02	6.1015E-07	2.6820E+18	1.9637E+09
I-130	3.7580E-03	1.9269E-12	8.9260E+12	1.3905E+08
Cs-134m	7.6591E-05	9.4975E-15	4.2683E+10	2.8339E+06
Rb-88	2.2244E-05	1.8531E-16	1.2681E+09	8.2303E+05
Ba-137m	5.8831E-02	1.0939E-13	4.8086E+11	2.1768E+09
Br-82	1.2717E-03	1.1747E-12	8.6268E+12	4.7054E+07
Br-83	3.3305E-05	2.1082E-15	1.5296E+10	1.2323E+06

Detailed model information at time (H) = 96.0000

EAB Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.4195E-02	6.1200E+00	9.4469E-02	3.3225E-01
Accumulated dose (rem)	6.8621E-01	1.8288E+02	1.2499E+00	9.2374E+00

LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	5.5004E-04	9.8443E-02	1.5196E-03	5.3444E-03
Accumulated dose (rem)	5.3102E-02	1.2459E+01	9.3044E-02	6.3166E-01

Control Room Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.9009E-04	1.3461E-01	3.0926E-02	6.9530E-03
Accumulated dose (rem)	8.3857E-03	1.6655E+01	5.5267E-01	7.8354E-01

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	3.1767E+04	8.0968E-02	5.7365E+23	1.1754E+15
Kr-85m	2.0851E-01	2.5337E-11	1.7951E+14	7.7149E+09
Kr-88	1.0657E-04	8.4992E-15	5.8163E+10	3.9432E+06
Rb-86	4.1461E-01	5.0956E-09	3.5682E+16	1.5341E+10
Sr-89	3.3501E-02	1.1531E-09	7.8025E+15	1.2395E+09
I-131	2.5051E+03	2.0207E-05	9.2890E+19	9.2689E+13
I-132	1.3752E-09	1.3323E-19	6.0781E+05	5.0882E+01
I-133	2.8190E+02	2.4885E-07	1.1268E+18	1.0430E+13
I-135	2.7534E-01	7.8404E-11	3.4975E+14	1.0188E+10
Xe-133	3.1171E+06	1.6653E-02	7.5403E+22	1.1533E+17
Xe-135	7.8395E+03	3.0698E-06	1.3694E+19	2.9006E+14
Cs-134	4.9837E+01	3.8519E-05	1.7311E+20	1.8440E+12
Cs-136	1.1670E+01	1.5923E-07	7.0509E+17	4.3180E+11
Cs-137	2.7004E+01	3.1045E-04	1.3647E+21	9.9913E+11
I-130	8.1215E-01	4.1642E-10	1.9290E+15	3.0050E+10
Kr-83m	9.5576E-07	4.6324E-17	3.3611E+08	3.5363E+04
Xe-131m	2.4361E+04	2.9084E-04	1.3370E+21	9.0137E+14
Xe-133m	5.9893E+04	1.3348E-04	6.0439E+20	2.2160E+15
Xe-135m	2.9028E+01	3.1867E-10	1.4215E+15	1.0740E+12
Cs-134m	1.3091E-09	1.6233E-19	7.2954E+05	4.8437E+01
Rb-88	1.1637E-04	9.6943E-16	6.6341E+09	4.3056E+06
Ba-137m	2.9934E+01	5.5660E-11	2.4467E+14	1.1076E+12
Br-82	3.7901E+00	3.5008E-09	2.5710E+16	1.4023E+11
Br-83	3.4839E-10	2.2053E-20	1.6001E+05	1.2891E+01

Containment Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	6.5101E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.8400E-33	0.0000E+00	0.0000E+00
Organic I (atoms)	9.0177E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	3.4998E-04	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.9231E+21	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1778E+00	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	7.9516E+01	2.0267E-04	1.4359E+21	2.9421E+12
Kr-85m	5.2193E-04	6.3422E-14	4.4933E+11	1.9311E+07
Rb-86	2.4393E+00	2.9979E-08	2.0993E+17	9.0254E+10
Sr-89	1.9709E-01	6.7841E-09	4.5905E+16	7.2925E+09
I-131	6.1470E+02	4.9583E-06	2.2793E+19	2.2744E+13
I-133	6.9172E+01	6.1063E-08	2.7649E+17	2.5594E+12
I-135	6.7564E-02	1.9239E-11	8.5821E+13	2.4999E+09
Xe-133	7.4917E+03	4.0024E-05	1.8122E+20	2.7719E+14
Xe-135	1.5172E+01	5.9413E-09	2.6503E+16	5.6138E+11
Cs-134	2.9320E+02	2.2662E-04	1.0184E+21	1.0849E+13
Cs-136	6.8660E+01	9.3681E-07	4.1482E+18	2.5404E+12
Cs-137	1.5887E+02	1.8265E-03	8.0287E+21	5.8782E+12
I-130	1.9929E-01	1.0218E-10	4.7334E+14	7.3736E+09
Xe-131m	5.6270E+01	6.7180E-07	3.0883E+18	2.0820E+12
Xe-133m	1.3445E+02	2.9964E-07	1.3568E+18	4.9747E+12
Xe-135m	1.1346E-02	1.2455E-13	5.5561E+11	4.1980E+08
Ba-137m	1.7611E+02	3.2747E-10	1.4395E+15	6.5161E+12
Br-82	9.3001E-01	8.5902E-10	6.3087E+15	3.4410E+10

Environment Transport Group Inventory:

Time (h) = 96.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.7125E+17	3.7674E+15	1.6216E+21
Elemental I (atoms)	7.7663E-40	1.0786E-41	9.3634E+16
Organic I (atoms)	3.7569E+13	5.2179E+11	2.2568E+17
Aerosols (kg)	1.4595E-10	2.0271E-12	2.0590E-03

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	7.6771E-04	9.4352E-12	6.6070E+13	2.8405E+07
Sr-89	6.2031E-05	2.1352E-12	1.4447E+13	2.2951E+06
I-131	1.9296E-01	1.5564E-09	7.1549E+15	7.1393E+09
I-133	2.1713E-02	1.9168E-11	8.6790E+13	8.0339E+08
I-135	2.1208E-05	6.0391E-15	2.6939E+10	7.8471E+05
Cs-134	9.2279E-02	7.1323E-08	3.2053E+17	3.4143E+09
Cs-136	2.1609E-02	2.9484E-10	1.3056E+15	7.9954E+08
Cs-137	5.0001E-02	5.7484E-07	2.5268E+18	1.8500E+09
I-130	6.2556E-05	3.2075E-14	1.4858E+11	2.3146E+06
Ba-137m	5.5427E-02	1.0306E-13	4.5303E+11	2.0508E+09
Br-82	2.9193E-04	2.6965E-13	1.9803E+12	1.0801E+07

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.2993E+13
Organic I (atoms)	3.8441E+13
Aerosols (kg)	6.4803E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	3.7110E-05	9.4588E-11	6.7014E+14	1.3731E+06
Kr-85m	2.4358E-10	2.9599E-20	2.0970E+05	9.0126E+00
Rb-86	3.0741E-11	3.7780E-19	2.6455E+06	1.1374E+00
Sr-89	2.4838E-12	8.5496E-20	5.7850E+05	9.1902E-02
I-131	1.8196E-07	1.4677E-15	6.7471E+09	6.7325E+03
I-133	2.0476E-08	1.8075E-17	8.1843E+07	7.5760E+02
Xe-133	3.6956E-03	1.9743E-11	8.9397E+13	1.3674E+08
Xe-135	9.8592E-06	3.8607E-15	1.7222E+10	3.6479E+05
Cs-134	3.6950E-09	2.8559E-15	1.2835E+10	1.3672E+02
Cs-136	8.6527E-10	1.1806E-17	5.2277E+07	3.2015E+01

Cs-137	2.0021E-09	2.3018E-14	1.0118E+11	7.4079E+01
I-130	5.8991E-11	3.0246E-20	1.4011E+05	2.1827E+00
Xe-131m	3.0857E-05	3.6840E-13	1.6935E+12	1.1417E+06
Xe-133m	7.3834E-05	1.6455E-13	7.4506E+11	2.7318E+06
Xe-135m	2.0381E-06	2.2374E-17	9.9807E+07	7.5410E+04
Br-82	2.7529E-10	2.5428E-19	1.8674E+06	1.0186E+01

Control Room Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	7.6199E+14	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.8497E-43	0.0000E+00	0.0000E+00
Organic I (atoms)	6.5442E+09	0.0000E+00	0.0000E+00
Aerosols (kg)	2.5948E-14	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	6.1523E-05	7.5611E-13	5.2947E+12	2.2763E+06
Sr-89	4.9710E-06	1.7111E-13	1.1578E+12	1.8393E+05
I-131	1.5549E-02	1.2542E-10	5.7657E+14	5.7532E+08
I-133	1.7498E-03	1.5446E-12	6.9939E+12	6.4741E+07
I-135	1.7091E-06	4.8666E-16	2.1709E+09	6.3235E+04
Cs-134	7.3950E-03	5.7156E-09	2.5687E+16	2.7362E+08
Cs-136	1.7317E-03	2.3628E-11	1.0463E+14	6.4073E+07
Cs-137	4.0070E-03	4.6067E-08	2.0250E+17	1.4826E+08
I-130	5.0411E-06	2.5847E-15	1.1973E+10	1.8652E+05
Ba-137m	4.4418E-03	8.2592E-15	3.6305E+10	1.6435E+08
Br-82	2.3525E-05	2.1729E-14	1.5958E+11	8.7043E+05

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	7.0118E+12
Organic I (atoms)	0.0000E+00	2.7497E+12
Aerosols (kg)	0.0000E+00	5.1932E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	7.6771E-04	9.4352E-12	6.6070E+13	2.8405E+07
Sr-89	6.2031E-05	2.1352E-12	1.4447E+13	2.2951E+06
I-131	1.9296E-01	1.5564E-09	7.1549E+15	7.1393E+09
I-133	2.1713E-02	1.9168E-11	8.6790E+13	8.0339E+08
I-135	2.1208E-05	6.0391E-15	2.6939E+10	7.8471E+05
Cs-134	9.2279E-02	7.1323E-08	3.2053E+17	3.4143E+09
Cs-136	2.1609E-02	2.9484E-10	1.3056E+15	7.9954E+08
Cs-137	5.0001E-02	5.7484E-07	2.5268E+18	1.8500E+09
I-130	6.2556E-05	3.2075E-14	1.4858E+11	2.3146E+06
Ba-137m	5.5427E-02	1.0306E-13	4.5303E+11	2.0508E+09
Br-82	2.9193E-04	2.6965E-13	1.9803E+12	1.0801E+07

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.2993E+13
Organic I (atoms)	3.8441E+13
Aerosols (kg)	6.4803E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 96.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	8.2924E-04	1.0191E-11	7.1364E+13	3.0682E+07
Sr-89	6.7002E-05	2.3063E-12	1.5605E+13	2.4791E+06
I-131	2.0850E-01	1.6818E-09	7.7315E+15	7.7147E+09
I-133	2.3463E-02	2.0712E-11	9.3784E+13	8.6813E+08
I-135	2.2917E-05	6.5257E-15	2.9110E+10	8.4795E+05
Cs-134	9.9674E-02	7.7038E-08	3.4622E+17	3.6879E+09
Cs-136	2.3341E-02	3.1847E-10	1.4102E+15	8.6361E+08
Cs-137	5.4008E-02	6.2091E-07	2.7293E+18	1.9983E+09
I-130	6.7597E-05	3.4659E-14	1.6056E+11	2.5011E+06
Ba-137m	5.9869E-02	1.1132E-13	4.8934E+11	2.2152E+09
Br-82	3.1546E-04	2.9138E-13	2.1399E+12	1.1672E+07

Detailed model information at time (H) = 720.0000

EAB Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.7055E-02	1.6670E+00	1.3051E-01	8.7899E-02
Accumulated dose (rem)	7.2327E-01	1.8455E+02	1.3804E+00	9.3253E+00

LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.7462E-04	7.8559E-03	6.1501E-04	4.1422E-04
Accumulated dose (rem)	5.3277E-02	1.2467E+01	9.3659E-02	6.3208E-01

Control Room Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.1829E-04	1.7838E-02	1.4197E-02	6.6235E-04
Accumulated dose (rem)	8.5040E-03	1.6672E+01	5.6687E-01	7.8420E-01

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	3.1212E+04	7.9556E-02	5.6364E+23	1.1549E+15
I-131	2.5203E+02	2.0329E-06	9.3455E+18	9.3252E+12
I-133	2.4849E-07	2.1936E-16	9.9323E+08	9.1941E+03
Xe-133	1.0156E+05	5.4260E-04	2.4568E+21	3.7579E+15
Xe-131m	9.4743E+03	1.1311E-04	5.1998E+20	3.5055E+14
Xe-133m	1.6552E+01	3.6887E-08	1.6702E+17	6.1241E+11
Br-82	1.7117E-05	1.5811E-14	1.1612E+11	6.3334E+05

Containment Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	5.6662E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	9.3455E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	2.7262E-31	0.0000E+00	0.0000E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter

Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.0690E+20	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1442E+00	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	4.8756E+02	1.2427E-03	8.8045E+21	1.8040E+13
I-131	6.8640E+01	5.5366E-07	2.5452E+18	2.5397E+12
Xe-133	1.5728E+03	8.4024E-06	3.8046E+19	5.8193E+13
Xe-131m	1.1378E+02	1.3584E-06	6.2448E+18	4.2100E+12
Xe-133m	2.5158E-01	5.6068E-10	2.5387E+15	9.3085E+09

Environment Transport Group Inventory:

Time (h) = 720.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	2.3609E+17	3.2790E+15	8.8488E+21
Elemental I (atoms)	0.0000E+00	0.0000E+00	9.8307E+15
Organic I (atoms)	3.8936E+12	5.4078E+10	1.4597E+17
Aerosols (kg)	1.1369E-37	1.5791E-39	2.0456E-03

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	2.9226E-04	3.5918E-12	2.5152E+13	1.0813E+07
Sr-89	4.3414E-05	1.4943E-12	1.0111E+13	1.6063E+06
I-131	2.0794E-02	1.6773E-10	7.7105E+14	7.6937E+08
Cs-134	9.0098E-02	6.9637E-08	3.1296E+17	3.3336E+09
Cs-136	5.4598E-03	7.4495E-11	3.2987E+14	2.0201E+08
Cs-137	4.9919E-02	5.7390E-07	2.5227E+18	1.8470E+09
Ba-137m	5.5337E-02	1.0289E-13	4.5229E+11	2.0475E+09
Br-82	1.4123E-09	1.3045E-18	9.5801E+06	5.2254E+01

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.5139E+12
Organic I (atoms)	1.4536E+13
Aerosols (kg)	6.4378E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	2.6932E-05	6.8646E-11	4.8635E+14	9.9649E+05
I-131	1.4052E-08	1.1335E-16	5.2105E+08	5.1992E+02
Xe-133	8.7637E-05	4.6819E-13	2.1199E+12	3.2426E+06
Xe-131m	8.4341E-06	1.0069E-13	4.6289E+11	3.1206E+05
Xe-133m	1.4282E-08	3.1829E-17	1.4412E+08	5.2843E+02

Control Room Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	4.8893E+14	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	5.2105E+08	0.0000E+00	0.0000E+00
Aerosols (kg)	1.5529E-41	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	2.3421E-05	2.8784E-13	2.0156E+12	8.6656E+05
Sr-89	3.4791E-06	1.1975E-13	8.1030E+11	1.2873E+05
I-131	1.6735E-03	1.3499E-11	6.2053E+13	6.1919E+07
Cs-134	7.2203E-03	5.5805E-09	2.5080E+16	2.6715E+08
Cs-136	4.3754E-04	5.9699E-12	2.6435E+13	1.6189E+07
Cs-137	4.0004E-03	4.5991E-08	2.0216E+17	1.4802E+08
Ba-137m	4.4346E-03	8.2457E-15	3.6246E+10	1.6408E+08
Br-82	1.1366E-10	1.0498E-19	7.7100E+05	4.2053E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	7.3618E+11
Organic I (atoms)	0.0000E+00	1.0537E+12
Aerosols (kg)	0.0000E+00	5.1591E-08

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	2.9226E-04	3.5918E-12	2.5152E+13	1.0813E+07
Sr-89	4.3414E-05	1.4943E-12	1.0111E+13	1.6063E+06
I-131	2.0794E-02	1.6773E-10	7.7105E+14	7.6937E+08
Cs-134	9.0098E-02	6.9637E-08	3.1296E+17	3.3336E+09
Cs-136	5.4598E-03	7.4495E-11	3.2987E+14	2.0201E+08
Cs-137	4.9919E-02	5.7390E-07	2.5227E+18	1.8470E+09
Ba-137m	5.5337E-02	1.0289E-13	4.5229E+11	2.0475E+09
Br-82	1.4123E-09	1.3045E-18	9.5801E+06	5.2254E+01

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	4.5139E+12
Organic I (atoms)	1.4536E+13
Aerosols (kg)	6.4378E-07

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	3.1568E-04	3.8796E-12	2.7167E+13	1.1680E+07
Sr-89	4.6893E-05	1.6141E-12	1.0922E+13	1.7350E+06
I-131	2.2467E-02	1.8123E-10	8.3310E+14	8.3129E+08
Cs-134	9.7318E-02	7.5217E-08	3.3804E+17	3.6008E+09
Cs-136	5.8973E-03	8.0465E-11	3.5630E+14	2.1820E+08
Cs-137	5.3920E-02	6.1990E-07	2.7249E+18	1.9950E+09
Ba-137m	5.9771E-02	1.1114E-13	4.8854E+11	2.2115E+09
Br-82	1.5259E-09	1.4094E-18	1.0351E+07	5.6459E+01

Transport Group Totals in Model:

Noble Gases (atoms)	5.7547E+23
Elemental I (atoms)	3.0691E+20
Organic I (atoms)	9.4915E+18
Aerosols (kg)	5.1463E+00

37002

##
I-131 Summary
##

Time (hr)	Containment I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	2.2440E+04	4.6629E-07	1.2122E-09
0.000	2.2440E+06	4.6624E-03	1.2122E-05
0.025	2.2574E+06	2.3452E+00	6.0481E-03
0.300	2.1650E+06	2.7643E+01	2.6736E-03
0.560	2.0881E+06	5.0624E+01	1.7401E-03
0.820	2.0189E+06	7.2795E+01	1.4338E-03
1.080	1.9554E+06	9.4229E+01	1.3144E-03
1.340	1.8965E+06	1.1498E+02	1.2520E-03
1.600	1.8412E+06	1.3510E+02	1.2081E-03
1.860	1.7888E+06	1.5461E+02	1.1711E-03
2.000	1.7616E+06	1.6488E+02	1.1526E-03
2.260	1.7127E+06	1.8353E+02	9.4879E-04
2.520	1.6657E+06	2.0164E+02	8.7223E-04
2.780	1.6205E+06	2.1923E+02	8.3358E-04
3.040	1.5767E+06	2.3633E+02	8.0661E-04
3.300	1.5343E+06	2.5294E+02	7.8356E-04
3.560	1.4932E+06	2.6909E+02	7.6213E-04
3.820	1.4534E+06	2.8478E+02	7.4161E-04
4.080	1.4146E+06	3.0004E+02	7.2177E-04
4.340	1.3769E+06	3.1486E+02	7.0252E-04
4.600	1.3403E+06	3.2927E+02	6.8382E-04
4.860	1.3047E+06	3.4328E+02	6.6563E-04
5.120	1.2701E+06	3.5689E+02	6.4794E-04
5.380	1.2363E+06	3.7012E+02	6.3073E-04
5.640	1.2035E+06	3.8298E+02	6.1399E-04
5.900	1.1716E+06	3.9548E+02	5.9770E-04
6.160	1.1405E+06	4.0762E+02	5.8184E-04
6.420	1.1103E+06	4.1942E+02	5.6641E-04
6.680	1.0808E+06	4.3088E+02	5.5139E-04
6.940	1.0522E+06	4.4202E+02	5.3677E-04
7.200	1.0243E+06	4.5285E+02	5.2254E-04
7.460	9.9715E+05	4.6336E+02	5.0869E-04
7.720	9.7072E+05	4.7358E+02	4.9521E-04
7.980	9.4500E+05	4.8351E+02	4.8208E-04

8.000	9.4305E+05	4.8426E+02	4.8109E-04
8.260	9.1806E+05	4.9388E+02	2.6349E-04
8.520	8.9374E+05	5.0323E+02	1.9644E-04
8.780	8.7006E+05	5.1230E+02	1.7363E-04
9.040	8.4702E+05	5.2112E+02	1.6387E-04
9.300	8.2458E+05	5.2968E+02	1.5801E-04
9.560	8.0275E+05	5.3799E+02	1.5338E-04
9.820	7.8149E+05	5.4607E+02	1.4919E-04
10.080	7.6080E+05	5.5391E+02	1.4520E-04
24.000	1.8213E+05	7.5421E+02	3.4747E-05
96.000	2.5051E+03	6.1470E+02	1.8196E-07
720.000	2.5203E+02	6.8640E+01	1.4052E-08

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#####################################################################
                        Cumulative Dose Summary
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	EAB		LPZ		Control Room	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	1.3402E-07	7.3417E-09	1.6560E-08	9.0716E-10	1.1438E-12	5.2383E-14
0.000	1.3402E-03	7.3416E-05	1.6559E-04	9.0715E-06	7.6254E-07	3.4923E-08
0.025	6.7406E-01	3.6915E-02	8.3288E-02	4.5613E-03	1.4264E-01	6.5333E-03
0.300	7.9352E+00	4.2916E-01	9.8050E-01	5.3028E-02	2.2220E+00	1.0189E-01
0.560	1.4516E+01	7.7709E-01	1.7936E+00	9.6018E-02	3.2562E+00	1.4956E-01
0.820	2.0850E+01	1.1067E+00	2.5763E+00	1.3674E-01	4.0155E+00	1.8475E-01
1.080	2.6961E+01	1.4207E+00	3.3314E+00	1.7554E-01	4.6780E+00	2.1555E-01
1.340	3.2866E+01	1.7212E+00	4.0610E+00	2.1267E-01	5.2972E+00	2.4438E-01
1.600	3.8578E+01	2.0097E+00	4.7668E+00	2.4832E-01	5.8896E+00	2.7201E-01
1.860	4.4109E+01	2.2874E+00	5.4502E+00	2.8264E-01	6.4611E+00	2.9868E-01
2.000	4.7016E+01	2.4328E+00	5.8094E+00	3.0060E-01	6.7610E+00	3.1269E-01
2.260	5.2287E+01	2.6956E+00	6.1057E+00	3.1537E-01	7.2552E+00	3.3581E-01
2.520	5.7398E+01	2.9496E+00	6.3930E+00	3.2965E-01	7.6871E+00	3.5603E-01
2.780	6.2356E+01	3.1953E+00	6.6717E+00	3.4346E-01	8.0921E+00	3.7502E-01
3.040	6.7167E+01	3.4332E+00	6.9422E+00	3.5684E-01	8.4809E+00	3.9326E-01
3.300	7.1835E+01	3.6636E+00	7.2046E+00	3.6979E-01	8.8570E+00	4.1091E-01
3.560	7.6366E+01	3.8869E+00	7.4593E+00	3.8234E-01	9.2217E+00	4.2804E-01
3.820	8.0765E+01	4.1034E+00	7.7066E+00	3.9452E-01	9.5756E+00	4.4467E-01
4.080	8.5035E+01	4.3134E+00	7.9466E+00	4.0632E-01	9.9191E+00	4.6083E-01
4.340	8.9181E+01	4.5171E+00	8.1797E+00	4.1777E-01	1.0253E+01	4.7652E-01
4.600	9.3207E+01	4.7148E+00	8.4060E+00	4.2888E-01	1.0576E+01	4.9177E-01
4.860	9.7116E+01	4.9067E+00	8.6258E+00	4.3967E-01	1.0891E+01	5.0659E-01
5.120	1.0091E+02	5.0929E+00	8.8392E+00	4.5014E-01	1.1196E+01	5.2100E-01
5.380	1.0460E+02	5.2737E+00	9.0464E+00	4.6030E-01	1.1493E+01	5.3499E-01
5.640	1.0818E+02	5.4493E+00	9.2477E+00	4.7017E-01	1.1781E+01	5.4860E-01
5.900	1.1166E+02	5.6198E+00	9.4432E+00	4.7976E-01	1.2060E+01	5.6182E-01
6.160	1.1503E+02	5.7853E+00	9.6331E+00	4.8906E-01	1.2332E+01	5.7467E-01
6.420	1.1832E+02	5.9461E+00	9.8175E+00	4.9810E-01	1.2596E+01	5.8716E-01
6.680	1.2150E+02	6.1024E+00	9.9966E+00	5.0689E-01	1.2852E+01	5.9931E-01
6.940	1.2460E+02	6.2541E+00	1.0171E+01	5.1542E-01	1.3101E+01	6.1111E-01
7.200	1.2760E+02	6.4015E+00	1.0340E+01	5.2370E-01	1.3343E+01	6.2259E-01
7.460	1.3052E+02	6.5447E+00	1.0504E+01	5.3175E-01	1.3578E+01	6.3374E-01
7.720	1.3336E+02	6.6839E+00	1.0663E+01	5.3958E-01	1.3806E+01	6.4459E-01
7.980	1.3612E+02	6.8191E+00	1.0818E+01	5.4718E-01	1.4028E+01	6.5514E-01
8.000	1.3633E+02	6.8294E+00	1.0830E+01	5.4776E-01	1.4044E+01	6.5593E-01
8.260	1.3770E+02	6.8994E+00	1.0882E+01	5.5041E-01	1.4203E+01	6.6352E-01
8.520	1.3904E+02	6.9675E+00	1.0933E+01	5.5298E-01	1.4304E+01	6.6837E-01
8.780	1.4033E+02	7.0335E+00	1.0982E+01	5.5548E-01	1.4387E+01	6.7234E-01
9.040	1.4159E+02	7.0978E+00	1.1029E+01	5.5791E-01	1.4463E+01	6.7598E-01
9.300	1.4282E+02	7.1601E+00	1.1076E+01	5.6027E-01	1.4535E+01	6.7945E-01
9.560	1.4401E+02	7.2208E+00	1.1121E+01	5.6257E-01	1.4605E+01	6.8281E-01
9.820	1.4516E+02	7.2797E+00	1.1165E+01	5.6480E-01	1.4672E+01	6.8607E-01
10.080	1.4629E+02	7.3369E+00	1.1207E+01	5.6696E-01	1.4738E+01	6.8924E-01
24.000	1.7676E+02	8.9052E+00	1.2360E+01	6.2632E-01	1.6520E+01	7.7659E-01
96.000	1.8288E+02	9.2374E+00	1.2459E+01	6.3166E-01	1.6655E+01	7.8354E-01
720.000	1.8455E+02	9.3253E+00	1.2467E+01	6.3208E-01	1.6672E+01	7.8420E-01

```
#####################################################################
                        Worst Two-Hour Dose
                   (Provided for Dose Location 1)
#####################################################################
```

EAB

```
    Time    Whole Body     Thyroid         Skin         TEDE
    (hr)      (rem)         (rem)          (rem)        (rem)
     0.0   2.7444E-01   4.7016E+01   4.6854E-01   2.4328E+00

#####################################################################
                      30 Day Control Room Skin Dose
#####################################################################

Control Room
    Time      Skin
    (hr)      (rem)
   720.0   5.6687E-01
```

Attachment 9 Containment Release FCM Dose

```
#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:23:21
#######################################################################

#######################################################################
                    File information
#######################################################################

Plant file name           = AST/CRE/pal_CRE_FCM_cont_db_ast.psf
Inventory file name       = AST/CRE/palisades_loca_db_ast.nif
Scenario file name        = AST/CRE/pal_CRE_FCM_cont_db_ast.psf
Release file name         = AST/CRE/pal_cre_fcm_cont_ast.rft
Dose conversion file name = AST/CRE/nai-1101-001rev0.dcf
```

```
     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #
```

```
*RADTRAD-NAI 1.1a(QA)
*18 May 2006 13:23:15
** Palisades CRE Design Basis
** FCM Containment Release Dose
**
*Nuclide inventory file
AST/CRE/palisades_loca_db_ast.nif
*Plant power
27.5706
*Compartments
3
*Compartment 1:
Containment
   3
1640000
   0
   0
   1
   0
*Compartment 2:
Environment
   2
2e+20
   0
   0
   0
   0
*Compartment 3:
Control Room
   1
35923
   0
   1
   0
   0
*Pathways
   5
*Pathway 1:
Containment Leakage
   1
   2
   4
*Pathway 2:
```

```
Control Room Unfiltered Makeup
   2
   3
   2
*Pathway 3:
Control Room Filtered Makeup
   2
   3
   2
*Pathway 4:
Control Room Unfiltered Inleakage
   2
   3
   2
*Pathway 5:
Control Room Exhaust
   3
   2
   2
*Sources
   3
   1 1
   2 0
   3 0
*dose conversion factors filename
AST/CRE/nai-1101-001rev0.dcf
*release fraction and timing filename
AST/CRE/pal_cre_fcm_cont_ast.rft
0
   1
   1
*Iodine
0.95 0.0485 0.0015
*Overlying pool
*aerosol model
   0
*elemental model
   0
*organic model
   0
*pH tracking
   0
*Compartment detail
*Compartment 1:
   1
*spray model
0
0
0
*filter model
0
*deposition model
*deposition aerosol model
   1
   2
0 0.1
720 0.1
*deposition elemental model
   1
   2
0 1.3
720 1.3
*Compartment 2:
   1
*spray model
0
0
0
*filter model
0
*deposition model
0
0
```

```
*Compartment 3:
   1
*spray model
0
0
0
*filter model
   1
   3
0 0 99 99 99
0.025 1413.6 99 99 99
720 1413.6 99 99 99
*deposition model
0
0
*Pathways:
*Pathway 1
*convection model
   1
   3
0 0.1
24 0.05
720 0.05
*Pathway 2
*filter efficiency model
   1
   3
0 384.2 0 0 0
0.025 0 0 0 0
720 0 0 0 0
*Pathway 3
*filter efficiency model
   1
   3
0 0 99 99 99
0.025 1413.6 99 99 99
720 1413.6 99 99 99
*Pathway 4
*filter efficiency model
   1
   3
0 0 0 0 0
0.025 10 0 0 0
720 10 0 0 0
*Pathway 5
*filter efficiency model
   1
   3
0 384.2 0 0 0
0.025 1423.6 0 0 0
720 1423.6 0 0 0
*x/q tables
   4
EAB
   2
0 0.000539
720 0.000539
LPZ
   6
0 6.66e-05
2 3.03e-05
8 2.04e-05
24 8.67e-06
96 2.54e-06
720 2.54e-06
Control Room Unfiltered
   6
0 0.0143
2 0.0111
8 0.00413
24 0.00323
96 0.00249
720 0.00249
```

```
Control Room Emergency
   6
0 0.000726
2 0.000618
8 0.000247
24 0.000177
96 0.00013
720 0.00013
*dose locations
   3
*location name, compartment number and x/q table
EAB
   2
   1
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
LPZ
   2
   2
*br model
   1
   4
0 0.00035
8 0.00018
24 0.00023
720 0.00023
*of model
   0
*location x/q input to be included
   0
*location name, compartment number and x/q table
Control Room
   3
   0
*br model
   1
   2
0 0.00035
720 0.00035
*of model
   1
   4
0 1
24 0.6
96 0.4
720 0.4
*location x/q input to be included
   1
*number of intake combinations
   3
*intake combinations
2 1 3
3 1 4
4 1 3
*time step count
   3
0 1e-06
0.001 0.02
720 0.02
*show plant, scenario, event, step, model
   1
   1
   1
```

```
  0
  1

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:23:21
#######################################################################

#######################################################################
                     Plant Description
#######################################################################

Number of Nuclides = 107

Inventory Power =   2.7030E+03 MWth
Plant Power Level =   2.7571E+01 MWth

Number of compartments    =   3

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00)
Name: Containment
Compartment volume =   1.6400E+06 (Cubic feet)
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
    Pathway to compartment number   2: Containment Leakage

Compartment number  2
Name: Environment
Pathways into and out of compartment  2
    Pathway to compartment number   3: Control Room Unfiltered Makeup
    Pathway to compartment number   3: Control Room Filtered Makeup
    Pathway to compartment number   3: Control Room Unfiltered Inleakage
    Pathway from compartment number 1: Containment Leakage
    Pathway from compartment number 3: Control Room Exhaust

Compartment number  3
Name: Control Room
Compartment volume =   3.5923E+04 (Cubic feet)
Removal devices within compartment:
     Filter(s)
Pathways into and out of compartment  3
    Pathway to compartment number   2: Control Room Exhaust
    Pathway from compartment number 2: Control Room Unfiltered Makeup
    Pathway from compartment number 2: Control Room Filtered Makeup
    Pathway from compartment number 2: Control Room Unfiltered Inleakage

Total number of pathways =   5


#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:23:21
#######################################################################

#######################################################################
                     Scenario Description
#######################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Iodine fractions
     Aerosol     =   9.5000E-01
     Elemental   =   4.8500E-02
     Organic     =   1.5000E-03

COMPARTMENT DATA

Compartment number   1: Containment

     Natural Deposition: Aerosol data
      Time (hr)          Removal Coef. (hr^-1)
```

```
       0.0000E+00          1.0000E-01
       7.2000E+02          1.0000E-01

     Natural Deposition:  Elemental Removal Data
      Time (hr)          Removal Coef. (hr^-1)
       0.0000E+00          1.3000E+00
       7.2000E+02          1.3000E+00

Compartment number   2: Environment

Compartment number   3: Control Room

     Compartment Filter Data

      Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   9.9000E+01   9.9000E+01   9.9000E+01
       2.5000E-02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01
       7.2000E+02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01

PATHWAY DATA

Pathway number  1: Containment Leakage

     Convection Data
      Time (hr)          Flow Rate (% / day)
       0.0000E+00              1.0000E-01
       2.4000E+01              5.0000E-02
       7.2000E+02              5.0000E-02

Pathway number  2: Control Room Unfiltered Makeup

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    3.8420E+02   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  3: Control Room Filtered Makeup

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   9.9000E+01   9.9000E+01   9.9000E+01
       2.5000E-02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01
       7.2000E+02    1.4136E+03   9.9000E+01   9.9000E+01   9.9000E+01

Pathway number  4: Control Room Unfiltered Inleakage

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    1.0000E+01   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    1.0000E+01   0.0000E+00   0.0000E+00   0.0000E+00

Pathway number  5: Control Room Exhaust

     Pathway Filter: Removal Data

       Time (hr)      Flow Rate          Filter Efficiencies (%)
                       (cfm)        Aerosol     Elemental    Organic
       0.0000E+00    3.8420E+02   0.0000E+00   0.0000E+00   0.0000E+00
       2.5000E-02    1.4236E+03   0.0000E+00   0.0000E+00   0.0000E+00
       7.2000E+02    1.4236E+03   0.0000E+00   0.0000E+00   0.0000E+00

X/Q DATA

X/Q table   1: EAB
```

```
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          5.3900E-04
       7.2000E+02          5.3900E-04

X/Q table   2: LPZ
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          6.6600E-05
       2.0000E+00          3.0300E-05
       8.0000E+00          2.0400E-05
       2.4000E+01          8.6700E-06
       9.6000E+01          2.5400E-06
       7.2000E+02          2.5400E-06

X/Q table   3: Control Room Unfiltered
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          1.4300E-02
       2.0000E+00          1.1100E-02
       8.0000E+00          4.1300E-03
       2.4000E+01          3.2300E-03
       9.6000E+01          2.4900E-03
       7.2000E+02          2.4900E-03

X/Q table   4: Control Room Emergency
      Time (hr)         X/Q (s * m^-3)
       0.0000E+00          7.2600E-04
       2.0000E+00          6.1800E-04
       8.0000E+00          2.4700E-04
       2.4000E+01          1.7700E-04
       9.6000E+01          1.3000E-04
       7.2000E+02          1.3000E-04

LOCATION DATA

     Location EAB is in compartment   2

     Using X/Q Table   1

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location LPZ is in compartment   2

     Using X/Q Table   2

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                2.3000E-04

     Location Control Room is in compartment   3

     Inleakage X/Q Table Assignments
     Inleakage Path   Source Path  X/Q Table
            2              1           3
            3              1           4
            4              1           3

     Location Breathing Rate Data
      Time (hr)         Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       7.2000E+02                3.5000E-04

     Location Occupancy Factor Data
      Time (hr)         Occupancy Factor
       0.0000E+00           1.0000E+00
       2.4000E+01           6.0000E-01
       9.6000E+01           4.0000E-01
```

```
       7.2000E+02            4.0000E-01

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
      0.0000E+00       1.0000E-06
      1.0000E-03       2.0000E-02
      7.2000E+02       2.0000E-02

#######################################################################
      RADTRAD-NAI Version 1.1a(QA) run on May 18, 2006 at 13:23:21
#######################################################################



     ####   #    #  #####  #####   #    #  #####
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #    #  #    #    #
    #    #  #    #    #    #####   #    #    #
    #    #  #    #    #    #       #    #    #
    #    #  #    #    #    #       #    #    #
     ####    ####     #    #        ####     #


#####################################################################
           Dose, Detailed Model and Detailed Inventory Output
#####################################################################

Detailed model information at time (H) =    0.0001

EAB Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.3363E-06  1.1310E-04  2.3042E-06  5.5463E-06
Accumulated dose (rem)  1.3363E-06  1.1310E-04  2.3042E-06  5.5463E-06

LPZ Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.6512E-07  1.3974E-05  2.8472E-07  6.8532E-07
Accumulated dose (rem)  1.6512E-07  1.3974E-05  2.8472E-07  6.8532E-07

Control Room Doses:

Time (h) =   0.0001     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.2460E-11  6.4350E-08  1.3111E-09  2.4179E-09
Accumulated dose (rem)  2.2460E-11  6.4350E-08  1.3111E-09  2.4179E-09

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0001       Ci           kg         Atoms         Bq
Kr-85                  1.0730E+04  2.7350E-02  1.9377E+23  3.9702E+14
Kr-85m                 1.9869E+05  2.4144E-05  1.7106E+20  7.3516E+15
Kr-87                  3.8309E+05  1.3525E-05  9.3617E+19  1.4174E+16
Kr-88                  5.3916E+05  4.2998E-05  2.9425E+20  1.9949E+16
Rb-86                  2.3978E+02  2.9469E-06  2.0636E+19  8.8719E+12
Sr-89                  2.4370E-03  8.3882E-11  5.6758E+14  9.0167E+07
I-131                  1.9081E+05  1.5391E-03  7.0755E+21  7.0602E+15
I-132                  2.7233E+05  2.6383E-05  1.2037E+20  1.0076E+16
I-133                  3.7281E+05  3.2910E-04  1.4901E+21  1.3794E+16
I-134                  4.0849E+05  1.5312E-05  6.8816E+19  1.5114E+16
I-135                  3.4985E+05  9.9621E-05  4.4439E+20  1.2945E+16
Xe-133                 1.4953E+06  7.9886E-03  3.6172E+22  5.5327E+16
Xe-135                 4.7859E+05  1.8741E-04  8.3600E+20  1.7708E+16
Cs-134                 2.4933E+04  1.9271E-02  8.6604E+22  9.2251E+14
Cs-136                 7.1885E+03  9.8082E-05  4.3431E+20  2.6598E+14
Cs-137                 1.3464E+04  1.5479E-01  6.8041E+23  4.9817E+14
I-130                  9.5445E+03  4.8938E-06  2.2670E+19  3.5315E+14
Kr-83m                 9.3012E+04  4.5082E-06  3.2709E+19  3.4415E+15
Xe-138                 1.2349E+06  1.2842E-05  5.6042E+19  4.5690E+16
Xe-131m                8.5129E+03  1.0163E-04  4.6721E+20  3.1498E+14
Xe-133m                4.7522E+04  1.0591E-04  4.7955E+20  1.7583E+15
```

Xe-135m	3.0585E+05	3.3576E-06	1.4978E+19	1.1316E+16
Cs-138	1.6408E+05	3.8777E-06	1.6922E+19	6.0711E+15
Cs-134m	6.0219E+03	7.4673E-07	3.3559E+18	2.2281E+14
Rb-88	6.5772E+04	5.4792E-07	3.7496E+18	2.4336E+15
Rb-89	8.4371E+04	6.0702E-07	4.1074E+18	3.1217E+15
Ba-137m	1.0477E+01	1.9481E-11	8.5631E+13	3.8764E+11
Br-82	1.3469E+03	1.2441E-06	9.1367E+18	4.9835E+13
Br-83	2.3209E+04	1.4691E-06	1.0660E+19	8.5874E+14
Br-84	4.0565E+04	5.7628E-07	4.1315E+18	1.5009E+15

Containment Transport Group Inventory:

Time (h) = 0.0001	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.3239E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.4840E+20	0.0000E+00	0.0000E+00
Organic I (atoms)	1.3869E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7608E-01	0.0000E+00	0.0000E+00

Time (h) = 0.0001	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.9144E+16	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	8.8034E-07	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0001	Ci	kg	Atoms	Bq
Kr-85	2.2295E-05	5.6826E-11	4.0260E+14	8.2491E+05
Kr-85m	4.1283E-04	5.0164E-14	3.5541E+11	1.5275E+07
Kr-87	7.9596E-04	2.8100E-14	1.9451E+11	2.9450E+07
Kr-88	1.1202E-03	8.9337E-14	6.1137E+11	4.1448E+07
Rb-86	4.9820E-07	6.1228E-15	4.2875E+10	1.8433E+04
I-131	3.9646E-04	3.1979E-12	1.4701E+13	1.4669E+07
I-132	5.6583E-04	5.4817E-14	2.5009E+11	2.0936E+07
I-133	7.7459E-04	6.8378E-13	3.0961E+12	2.8660E+07
I-134	8.4872E-04	3.1815E-14	1.4298E+11	3.1402E+07
I-135	7.2690E-04	2.0698E-13	9.2333E+11	2.6895E+07
Xe-133	3.1069E-03	1.6598E-11	7.5155E+13	1.1495E+08
Xe-135	9.9437E-04	3.8938E-13	1.7370E+12	3.6792E+07
Cs-134	5.1803E-05	4.0039E-11	1.7994E+14	1.9167E+06
Cs-136	1.4936E-05	2.0379E-13	9.0238E+11	5.5262E+05
Cs-137	2.7974E-05	3.2161E-10	1.4137E+15	1.0351E+06
I-130	1.9831E-05	1.0168E-14	4.7102E+10	7.3374E+05
Kr-83m	1.9325E-04	9.3666E-15	6.7961E+10	7.1504E+06
Xe-138	2.5657E-03	2.6683E-14	1.1644E+11	9.4931E+07
Xe-131m	1.7687E-05	2.1117E-13	9.7074E+11	6.5444E+05
Xe-133m	9.8737E-05	2.2005E-13	9.9636E+11	3.6533E+06
Xe-135m	6.3546E-04	6.9760E-15	3.1119E+10	2.3512E+07
Cs-138	3.4097E-04	8.0580E-15	3.5164E+10	1.2616E+07
Cs-134m	1.2512E-05	1.5515E-15	6.9727E+09	4.6294E+05
Rb-88	1.3669E-04	1.1388E-15	7.7929E+09	5.0577E+06
Rb-89	1.7530E-04	1.2612E-15	8.5340E+09	6.4861E+06
Br-82	2.7985E-06	2.5849E-15	1.8984E+10	1.0354E+05
Br-83	4.8223E-05	3.0525E-15	2.2148E+10	1.7842E+06
Br-84	8.4283E-05	1.1974E-15	8.5841E+09	3.1185E+06

Environment Transport Group Inventory:

Time (h) = 0.0001	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	9.6095E+12	2.6693E+15	4.8284E+14
Elemental I (atoms)	1.8542E+10	5.1504E+12	9.3167E+11
Organic I (atoms)	5.7349E+08	1.5930E+11	2.8816E+10
Aerosols (kg)	7.2812E-12	2.0226E-09	3.6586E-10

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0001	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00

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Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0001       Ci           kg          Atoms          Bq
Kr-85                  5.7963E-08  1.4774E-13  1.0467E+12  2.1446E+03
Kr-85m                 1.0733E-06  1.3042E-16  9.2401E+08  3.9712E+04
Kr-87                  2.0694E-06  7.3057E-17  5.0570E+08  7.6567E+04
Kr-88                  2.9124E-06  2.3226E-16  1.5895E+09  1.0776E+05
Rb-86                  1.2952E-09  1.5918E-17  1.1147E+08  4.7924E+01
I-131                  1.0307E-06  8.3141E-15  3.8220E+10  3.8137E+04
I-132                  1.4711E-06  1.4252E-16  6.5019E+08  5.4430E+04
I-133                  2.0138E-06  1.7777E-15  8.0494E+09  7.4511E+04
I-134                  2.2065E-06  8.2714E-17  3.7173E+08  8.1642E+04
I-135                  1.8898E-06  5.3813E-16  2.4005E+09  6.9924E+04
Xe-133                 8.0774E-06  4.3153E-14  1.9539E+11  2.9886E+05
Xe-135                 2.5852E-06  1.0123E-15  4.5159E+09  9.5653E+04
Cs-134                 1.3468E-07  1.0410E-13  4.6782E+11  4.9832E+03
Cs-136                 3.8831E-08  5.2982E-16  2.3461E+09  1.4367E+03
Cs-137                 7.2729E-08  8.3614E-13  3.6755E+12  2.6910E+03
I-130                  5.1557E-08  2.6435E-17  1.2246E+08  1.9076E+03
Kr-83m                 5.0243E-07  2.4352E-17  1.7669E+08  1.8590E+04
Xe-138                 6.6704E-06  6.9371E-17  3.0273E+08  2.4681E+05
Xe-131m                4.5985E-08  5.4900E-16  2.5238E+09  1.7014E+03
Xe-133m                2.5670E-07  5.7209E-16  2.5904E+09  9.4980E+03
Xe-135m                1.6521E-06  1.8137E-17  8.0904E+07  6.1128E+04
Cs-138                 8.8647E-07  2.0950E-17  9.1422E+07  3.2799E+04
Cs-134m                3.2529E-08  4.0337E-18  1.8128E+07  1.2036E+03
Rb-88                  3.5539E-07  2.9606E-18  2.0260E+07  1.3149E+04
Rb-89                  4.5576E-07  3.2790E-18  2.2187E+07  1.6863E+04
Br-82                  7.2757E-09  6.7203E-18  4.9354E+07  2.6920E+02
Br-83                  1.2537E-07  7.9360E-18  5.7580E+07  4.6387E+03
Br-84                  2.1912E-07  3.1129E-18  2.2317E+07  8.1075E+03

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =   0.0001    Atmosphere     Sump         Pool
Noble gases (atoms)    1.2553E+12  0.0000E+00  0.0000E+00
Elemental I (atoms)    2.4222E+09  0.0000E+00  0.0000E+00
Organic I (atoms)      7.4916E+07  0.0000E+00  0.0000E+00
Aerosols (kg)          9.5117E-13  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0001     Surfaces     Filter
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Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.0001      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    0.0250

EAB Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        6.7038E-04  5.6770E-02  1.1573E-03  2.7840E-03
Accumulated dose (rem)  6.7172E-04  5.6883E-02  1.1596E-03  2.7896E-03

LPZ Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        8.2834E-05  7.0146E-03  1.4300E-04  3.4400E-04
Accumulated dose (rem)  8.2999E-05  7.0286E-03  1.4328E-04  3.4469E-04

Control Room Doses:

Time (h) =   0.0250     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        4.1935E-06  1.2037E-02  2.4525E-04  4.5236E-04
Accumulated dose (rem)  4.1935E-06  1.2037E-02  2.4525E-04  4.5237E-04

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) =   0.0250       Ci           kg         Atoms         Bq
Kr-85                  1.0838E+04  2.7624E-02  1.9571E+23  4.0099E+14
Kr-85m                 1.9991E+05  2.4292E-05  1.7210E+20  7.3966E+15
Kr-87                  3.8171E+05  1.3476E-05  9.3278E+19  1.4123E+16
Kr-88                  5.4125E+05  4.3165E-05  2.9539E+20  2.0026E+16
Rb-86                  2.4157E+02  2.9688E-06  2.0789E+19  8.9380E+12
Sr-89                  1.1726E+00  4.0361E-08  2.7310E+17  4.3386E+10
I-131                  1.9195E+05  1.5483E-03  7.1177E+21  7.1023E+15
I-132                  2.7193E+05  2.6345E-05  1.2019E+20  1.0062E+16
I-133                  3.7475E+05  3.3082E-04  1.4979E+21  1.3866E+16
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I-134	4.0295E+05	1.5105E-05	6.7883E+19	1.4909E+16
I-135	3.5105E+05	9.9962E-05	4.4592E+20	1.2989E+16
Xe-133	1.5101E+06	8.0677E-03	3.6530E+22	5.5874E+16
Xe-135	4.8359E+05	1.8937E-04	8.4474E+20	1.7893E+16
Cs-134	2.5119E+04	1.9415E-02	8.7253E+22	9.2942E+14
Cs-136	7.2419E+03	9.8811E-05	4.3754E+20	2.6795E+14
Cs-137	1.3565E+04	1.5595E-01	6.8551E+23	5.0190E+14
I-130	9.5889E+03	4.9165E-06	2.2775E+19	3.5479E+14
Kr-83m	9.3281E+04	4.5211E-06	3.2804E+19	3.4514E+15
Xe-138	1.1593E+06	1.2057E-05	5.2613E+19	4.2894E+16
Xe-131m	8.5976E+03	1.0264E-04	4.7186E+20	3.1811E+14
Xe-133m	4.7985E+04	1.0694E-04	4.8422E+20	1.7754E+15
Xe-135m	2.9231E+05	3.2090E-06	1.4315E+19	1.0816E+16
Cs-138	1.9851E+05	4.6912E-06	2.0472E+19	7.3447E+15
Cs-134m	6.0310E+03	7.4786E-07	3.3610E+18	2.2315E+14
Rb-88	9.3745E+04	7.8096E-07	5.3444E+18	3.4686E+15
Rb-89	7.9405E+04	5.7129E-07	3.8656E+18	2.9380E+15
Ba-137m	4.8413E+03	9.0021E-09	3.9571E+16	1.7913E+14
Br-82	1.3544E+03	1.2510E-06	9.1875E+18	5.0112E+13
Br-83	2.3182E+04	1.4674E-06	1.0647E+19	8.5772E+14
Br-84	3.9503E+04	5.6119E-07	4.0233E+18	1.4616E+15

Containment Transport Group Inventory:

Time (h) = 0.0250	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.3470E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.3819E+20	0.0000E+00	0.0000E+00
Organic I (atoms)	1.3999E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7740E-01	0.0000E+00	0.0000E+00

Time (h) = 0.0250	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.4446E+19	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	4.4316E-04	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Kr-85	1.1237E-02	2.8643E-08	2.0293E+17	4.1579E+08
Kr-85m	2.0728E-01	2.5188E-11	1.7845E+14	7.6694E+09
Kr-87	3.9579E-01	1.3973E-11	9.6719E+13	1.4644E+10
Kr-88	5.6122E-01	4.4757E-11	3.0629E+14	2.0765E+10
Rb-86	2.5079E-04	3.0822E-12	2.1583E+13	9.2792E+06
Sr-89	1.2174E-06	4.1903E-14	2.8353E+11	4.5043E+04
I-131	1.9942E-01	1.6086E-09	7.3947E+15	7.3787E+09
I-132	2.8252E-01	2.7370E-11	1.2487E+14	1.0453E+10
I-133	3.8934E-01	3.4369E-10	1.5562E+15	1.4405E+10
I-134	4.1863E-01	1.5693E-11	7.0525E+13	1.5489E+10
I-135	3.6472E-01	1.0385E-10	4.6327E+14	1.3495E+10
Xe-133	1.5658E+00	8.3653E-09	3.7877E+16	5.7936E+10
Xe-135	5.0143E-01	1.9635E-10	8.7590E+14	1.8553E+10
Cs-134	2.6079E-02	2.0156E-08	9.0584E+16	9.6491E+08
Cs-136	7.5185E-03	1.0258E-10	4.5425E+14	2.7818E+08
Cs-137	1.4083E-02	1.6190E-07	7.1168E+17	5.2106E+08
I-130	9.9621E-03	5.1079E-12	2.3662E+13	3.6860E+08
Kr-83m	9.6721E-02	4.6879E-12	3.4014E+13	3.5787E+09
Xe-138	1.2021E+00	1.2501E-11	5.4554E+13	4.4477E+10
Xe-131m	8.9148E-03	1.0643E-10	4.8927E+14	3.2985E+08
Xe-133m	4.9755E-02	1.1089E-10	5.0208E+14	1.8409E+09
Xe-135m	3.0309E-01	3.3273E-12	1.4843E+13	1.1214E+10
Cs-138	2.0605E-01	4.8695E-12	2.1250E+13	7.6239E+09
Cs-134m	6.2613E-03	7.7641E-13	3.4893E+12	2.3167E+08
Rb-88	9.7297E-02	8.1055E-13	5.5468E+12	3.6000E+09
Rb-89	8.2437E-02	5.9310E-13	4.0132E+12	3.0502E+09
Ba-137m	5.0262E-03	9.3458E-15	4.1082E+10	1.8597E+08
Br-82	1.4071E-03	1.2997E-12	9.5451E+12	5.2063E+07
Br-83	2.4084E-02	1.5245E-12	1.1061E+13	8.9111E+08
Br-84	4.1040E-02	5.8303E-13	4.1799E+12	1.5185E+09

Environment Transport Group Inventory:

Time (h) = 0.0250	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	4.8771E+16	7.1303E+14	2.4336E+17
Elemental I (atoms)	9.1354E+13	1.3356E+12	4.6181E+14
Organic I (atoms)	2.9090E+12	4.2530E+10	1.4516E+13
Aerosols (kg)	3.6874E-08	5.3909E-10	1.8418E-07

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 0.0250	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 0.0250	Ci	kg	Atoms	Bq
Kr-85	2.8980E-05	7.3866E-11	5.2333E+14	1.0723E+06
Kr-85m	5.3456E-04	6.4956E-14	4.6021E+11	1.9779E+07
Kr-87	1.0207E-03	3.6034E-14	2.4943E+11	3.7766E+07
Kr-88	1.4473E-03	1.1542E-13	7.8988E+11	5.3551E+07
Rb-86	6.4676E-07	7.9486E-15	5.5660E+10	2.3930E+04
Sr-89	3.1394E-09	1.0806E-16	7.3120E+08	1.1616E+02
I-131	5.1429E-04	4.1483E-12	1.9070E+13	1.9029E+07
I-132	7.2858E-04	7.0584E-14	3.2202E+11	2.6957E+07
I-133	1.0041E-03	8.8634E-13	4.0133E+12	3.7150E+07
I-134	1.0796E-03	4.0470E-14	1.8188E+11	3.9945E+07
I-135	9.4056E-04	2.6782E-13	1.1947E+12	3.4801E+07
Xe-133	4.0381E-03	2.1573E-11	9.7682E+13	1.4941E+08
Xe-135	1.2931E-03	5.0637E-13	2.2588E+12	4.7846E+07
Cs-134	6.7254E-05	5.1980E-11	2.3361E+14	2.4884E+06
Cs-136	1.9389E-05	2.6455E-13	1.1714E+12	7.1740E+05
Cs-137	3.6318E-05	4.1753E-10	1.8354E+15	1.3438E+06
I-130	2.5691E-05	1.3173E-14	6.1021E+10	9.5057E+05
Kr-83m	2.4943E-04	1.2090E-14	8.7717E+10	9.2291E+06
Xe-138	3.1000E-03	3.2240E-14	1.4069E+11	1.1470E+08
Xe-131m	2.2990E-05	2.7448E-13	1.2618E+12	8.5064E+05
Xe-133m	1.2831E-04	2.8596E-13	1.2948E+12	4.7476E+06
Xe-135m	7.8164E-04	8.5808E-15	3.8278E+10	2.8921E+07
Cs-138	5.3138E-04	1.2558E-14	5.4801E+10	1.9661E+07
Cs-134m	1.6147E-05	2.0023E-15	8.9985E+09	5.9744E+05
Rb-88	2.5092E-04	2.0903E-15	1.4305E+10	9.2840E+06
Rb-89	2.1259E-04	1.5295E-15	1.0350E+10	7.8660E+06

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Ba-137m                1.2962E-05  2.4102E-17  1.0594E+08  4.7959E+05
Br-82                  3.6287E-06  3.3518E-15  2.4616E+10  1.3426E+05
Br-83                  6.2110E-05  3.9316E-15  2.8526E+10  2.2981E+06
Br-84                  1.0584E-04  1.5036E-15  1.0779E+10  3.9160E+06

Control Room Transport Group Inventory:

                                                Overlying
Time (h) =   0.0250    Atmosphere     Sump        Pool
Noble gases (atoms)    6.2760E+14  0.0000E+00  0.0000E+00
Elemental I (atoms)    1.1909E+12  0.0000E+00  0.0000E+00
Organic I (atoms)      3.7434E+10  0.0000E+00  0.0000E+00
Aerosols (kg)          4.7497E-10  0.0000E+00  0.0000E+00

                       Deposition Recirculating
Time (h) =   0.0250     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          0.0000E+00  0.0000E+00

Control Room Unfiltered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Filtered Makeup Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   0.0250      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Detailed model information at time (H) =    2.0000

EAB Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        3.3411E-02  3.9095E+00  6.3770E-02  1.7986E-01
Accumulated dose (rem)  3.4083E-02  3.9663E+00  6.4929E-02  1.8265E-01

LPZ Doses:

Time (h) =   2.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        4.1284E-03  4.8306E-01  7.8795E-03  2.2224E-02
Accumulated dose (rem)  4.2114E-03  4.9009E-01  8.0228E-03  2.2569E-02

Control Room Doses:
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Time (h) = 2.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	5.8583E-04	5.5841E-01	3.9651E-02	2.1711E-02
Accumulated dose (rem)	5.9003E-04	5.7045E-01	3.9896E-02	2.2164E-02

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	1.0837E+04	2.7622E-02	1.9570E+23	4.0098E+14
Kr-85m	1.4726E+05	1.7894E-05	1.2678E+20	5.4486E+15
Kr-87	1.3007E+05	4.5919E-06	3.1785E+19	4.8125E+15
Kr-88	3.3421E+05	2.6653E-05	1.8240E+20	1.2366E+16
Rb-86	1.9765E+02	2.4291E-06	1.7010E+19	7.3131E+12
Sr-89	1.4509E+01	4.9941E-07	3.3793E+18	5.3684E+11
I-131	1.4979E+05	1.2082E-03	5.5544E+21	5.5423E+15
I-132	1.1785E+05	1.1418E-05	5.2090E+19	4.3606E+15
I-133	2.7576E+05	2.4343E-04	1.1022E+21	1.0203E+16
I-134	6.6443E+04	2.4907E-06	1.1193E+19	2.4584E+15
I-135	2.2429E+05	6.3865E-05	2.8489E+20	8.2986E+15
Xe-133	1.4980E+06	8.0029E-03	3.6237E+22	5.5426E+16
Xe-135	4.6644E+05	1.8265E-04	8.1477E+20	1.7258E+16
Cs-134	2.0615E+04	1.5933E-02	7.1605E+22	7.6274E+14
Cs-136	5.9177E+03	8.0743E-05	3.5753E+20	2.1896E+14
Cs-137	1.1133E+04	1.2799E-01	5.6260E+23	4.1191E+14
I-130	6.7459E+03	3.4588E-06	1.6023E+19	2.4960E+14
Kr-83m	5.3183E+04	2.5777E-06	1.8703E+19	1.9678E+15
Xe-138	3.5215E+03	3.6623E-08	1.5982E+17	1.3030E+14
Xe-131m	8.5660E+03	1.0227E-04	4.7013E+20	3.1694E+14
Xe-133m	4.7018E+04	1.0479E-04	4.7446E+20	1.7397E+15
Xe-135m	4.8236E+04	5.2953E-07	2.3621E+18	1.7847E+15
Cs-138	7.2709E+04	1.7183E-06	7.4984E+18	2.6902E+15
Cs-134m	3.0872E+03	3.8282E-07	1.7205E+18	1.1423E+14
Rb-88	3.6088E+05	3.0064E-06	2.0574E+19	1.3353E+16
Rb-89	2.9322E+02	2.1096E-09	1.4275E+16	1.0849E+13
Ba-137m	1.2341E+04	2.2947E-08	1.0087E+17	4.5661E+14
Br-82	1.0239E+03	9.4578E-07	6.9459E+18	3.7886E+13
Br-83	1.0275E+04	6.5038E-07	4.7189E+18	3.8016E+14
Br-84	2.3455E+03	3.3321E-08	2.3889E+17	8.6784E+13

Containment Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.3406E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.2361E+19	0.0000E+00	0.0000E+00
Organic I (atoms)	1.3474E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	1.4554E-01	0.0000E+00	0.0000E+00

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.0335E+20	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	3.2222E-02	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	9.0301E-01	2.3016E-06	1.6307E+19	3.3411E+10
Kr-85m	1.2270E+01	1.4910E-09	1.0564E+16	4.5401E+11
Kr-87	1.0838E+01	3.8262E-10	2.6485E+15	4.0100E+11
Kr-88	2.7848E+01	2.2209E-09	1.5198E+16	1.0304E+12
Rb-86	1.8224E-02	2.2397E-10	1.5684E+15	6.7430E+08
Sr-89	1.3378E-03	4.6048E-11	3.1158E+14	4.9498E+07
I-131	1.4020E+01	1.1309E-07	5.1989E+17	5.1876E+11
I-132	1.1031E+01	1.0687E-09	4.8756E+15	4.0815E+11
I-133	2.5811E+01	2.2785E-08	1.0317E+17	9.5502E+11
I-134	6.2190E+00	2.3312E-10	1.0477E+15	2.3010E+11
I-135	2.0993E+01	5.9778E-09	2.6666E+16	7.7674E+11
Xe-133	1.2481E+02	6.6677E-07	3.0191E+18	4.6179E+12
Xe-135	3.8716E+01	1.5160E-08	6.7628E+16	1.4325E+12
Cs-134	1.9007E+00	1.4691E-06	6.6022E+18	7.0327E+10
Cs-136	5.4564E-01	7.4448E-09	3.2966E+16	2.0189E+10
Cs-137	1.0265E+00	1.1801E-05	5.1874E+19	3.7980E+10

I-130	6.3142E-01	3.2375E-10	1.4997E+15	2.3362E+10
Kr-83m	4.3973E+00	2.1313E-10	1.5464E+15	1.6270E+11
Xe-138	2.9343E-01	3.0516E-12	1.3317E+13	1.0857E+10
Xe-131m	7.1373E-01	8.5210E-09	3.9171E+16	2.6408E+10
Xe-133m	3.9168E+00	8.7291E-09	3.9525E+16	1.4492E+11
Xe-135m	3.6802E+00	4.0401E-11	1.8022E+14	1.3617E+11
Cs-138	6.6261E+00	1.5659E-10	6.8335E+14	2.4517E+11
Cs-134m	2.8465E-01	3.5298E-11	1.5863E+14	1.0532E+10
Rb-88	3.1119E+01	2.5924E-10	1.7741E+15	1.1514E+12
Rb-89	2.7036E-02	1.9451E-13	1.3162E+12	1.0003E+09
Ba-137m	1.1379E+00	2.1158E-12	9.3004E+12	4.2101E+10
Br-82	9.5840E-02	8.8525E-11	6.5013E+14	3.5461E+09
Br-83	9.6169E-01	6.0875E-11	4.4168E+14	3.5582E+10
Br-84	2.1954E-01	3.1189E-12	2.2360E+13	8.1230E+09

Environment Transport Group Inventory:

Time (h) = 2.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	1.9505E+17	2.7090E+15	1.9502E+19
Elemental I (atoms)	2.7307E+13	3.7927E+11	1.2920E+16
Organic I (atoms)	1.1223E+13	1.5587E+11	1.1223E+15
Aerosols (kg)	1.2134E-07	1.6853E-09	1.3419E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	8.6230E-06	1.0598E-13	7.4210E+11	3.1905E+05
Sr-89	6.3299E-07	2.1788E-14	1.4743E+11	2.3421E+04
I-131	6.6312E-03	5.3489E-11	2.4589E+14	2.4536E+08
I-132	5.2174E-03	5.0545E-13	2.3060E+12	1.9304E+08
I-133	1.2208E-02	1.0777E-11	4.8796E+13	4.5169E+08
I-134	2.9414E-03	1.1026E-13	4.9553E+11	1.0883E+08
I-135	9.9291E-03	2.8273E-12	1.2612E+13	3.6738E+08
Cs-134	8.9936E-04	6.9511E-10	3.1239E+15	3.3276E+07
Cs-136	2.5817E-04	3.5226E-12	1.5598E+13	9.5525E+06
Cs-137	4.8569E-04	5.5838E-09	2.4545E+16	1.7971E+07
I-130	2.9864E-04	1.5312E-13	7.0932E+11	1.1050E+07
Cs-138	2.3919E-03	5.6527E-14	2.4668E+11	8.8500E+07
Cs-134m	1.3469E-04	1.6702E-14	7.5059E+10	4.9834E+06
Rb-88	3.1777E-03	2.6472E-14	1.8116E+11	1.1757E+08
Rb-89	1.2792E-05	9.2037E-17	6.2276E+08	4.7332E+05
Ba-137m	5.3840E-04	1.0011E-15	4.4006E+09	1.9921E+07
Br-82	4.5330E-05	4.1870E-14	3.0749E+11	1.6772E+06
Br-83	4.5485E-04	2.8792E-14	2.0890E+11	1.6829E+07
Br-84	1.0384E-04	1.4751E-15	1.0575E+10	3.8419E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	5.9853E+12
Organic I (atoms)	5.3171E+11
Aerosols (kg)	6.3492E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	1.0411E-04	2.6535E-10	1.8800E+15	3.8519E+06
Kr-85m	1.4146E-03	1.7190E-13	1.2179E+12	5.2342E+07
Kr-87	1.2495E-03	4.4111E-14	3.0534E+11	4.6231E+07
Kr-88	3.2106E-03	2.5604E-13	1.7522E+12	1.1879E+08
Rb-86	1.2912E-07	1.5868E-15	1.1112E+10	4.7773E+03
Sr-89	9.4781E-09	3.2624E-16	2.2075E+09	3.5069E+02
I-131	9.8007E-05	7.9054E-13	3.6342E+12	3.6263E+06
I-132	7.7111E-05	7.4704E-15	3.4082E+10	2.8531E+06
I-133	1.8043E-04	1.5928E-13	7.2119E+11	6.6759E+06
I-134	4.3473E-05	1.6296E-15	7.3237E+09	1.6085E+06
I-135	1.4675E-04	4.1787E-14	1.8640E+11	5.4297E+06
Xe-133	1.4409E-02	7.6977E-11	3.4855E+14	5.3312E+08
Xe-135	4.6754E-03	1.8308E-12	8.1670E+12	1.7299E+08
Cs-134	1.3467E-05	1.0408E-11	4.6776E+13	4.9826E+05
Cs-136	3.8658E-06	5.2746E-14	2.3356E+11	1.4303E+05
Cs-137	7.2725E-06	8.3609E-11	3.6752E+14	2.6908E+05
I-130	4.4138E-06	2.2631E-15	1.0484E+10	1.6331E+05
Kr-83m	5.5778E-04	2.7035E-14	1.9615E+11	2.0638E+07
Xe-138	3.3829E-05	3.5182E-16	1.5353E+09	1.2517E+06
Xe-131m	8.2338E-05	9.8301E-13	4.5190E+12	3.0465E+06
Xe-133m	4.5298E-04	1.0095E-12	4.5711E+12	1.6760E+07
Xe-135m	1.1211E-03	1.2307E-14	5.4899E+10	4.1479E+07
Cs-138	6.1305E-05	1.4488E-15	6.3224E+09	2.2683E+06
Cs-134m	2.0167E-06	2.5008E-16	1.1239E+09	7.4619E+04
Rb-88	1.3329E-03	1.1104E-14	7.5989E+10	4.9318E+07
Rb-89	1.9155E-07	1.3781E-18	9.3249E+06	7.0872E+03
Ba-137m	8.0617E-06	1.4990E-17	6.5892E+07	2.9828E+05
Br-82	6.6996E-07	6.1882E-16	4.5446E+09	2.4788E+04
Br-83	6.7225E-06	4.2554E-16	3.0875E+09	2.4873E+05
Br-84	1.5347E-06	2.1802E-17	1.5630E+08	5.6782E+04

Control Room Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.2493E+15	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.8628E+10	0.0000E+00	0.0000E+00
Organic I (atoms)	8.6150E+09	0.0000E+00	0.0000E+00
Aerosols (kg)	9.5081E-11	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	9.0062E-07	1.1069E-14	7.7508E+10	3.3323E+04
Sr-89	6.6112E-08	2.2756E-15	1.5398E+10	2.4462E+03
I-131	7.0057E-04	5.6509E-12	2.5978E+13	2.5921E+07
I-132	5.5120E-04	5.3400E-14	2.4362E+11	2.0394E+07
I-133	1.2897E-03	1.1385E-12	5.1552E+12	4.7720E+07
I-134	3.1075E-04	1.1649E-14	5.2351E+10	1.1498E+07
I-135	1.0490E-03	2.9870E-13	1.3324E+12	3.8812E+07
Cs-134	9.3933E-05	7.2601E-11	3.2628E+14	3.4755E+06
Cs-136	2.6965E-05	3.6792E-13	1.6291E+12	9.9770E+05
Cs-137	5.0727E-05	5.8320E-10	2.5636E+15	1.8769E+06
I-130	3.1551E-05	1.6177E-14	7.4938E+10	1.1674E+06
Cs-138	4.0128E-04	9.4834E-15	4.1384E+10	1.4847E+07
Cs-134m	1.4067E-05	1.7444E-15	7.8395E+09	5.2049E+05
Rb-88	1.3151E-03	1.0956E-14	7.4976E+10	4.8660E+07
Rb-89	1.3361E-06	9.6127E-18	6.5044E+07	4.9435E+04
Ba-137m	5.6233E-05	1.0456E-16	4.5962E+08	2.0806E+06
Br-82	4.7890E-06	4.4234E-15	3.2486E+10	1.7719E+05

Br-83	4.8054E-05	3.0418E-15	2.2070E+10	1.7780E+06
Br-84	1.0970E-05	1.5584E-16	1.1173E+09	4.0589E+05

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	1.0019E+12
Organic I (atoms)	0.0000E+00	5.3362E+10
Aerosols (kg)	0.0000E+00	6.6315E-10

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	8.6230E-06	1.0598E-13	7.4210E+11	3.1905E+05
Sr-89	6.3299E-07	2.1788E-14	1.4743E+11	2.3421E+04
I-131	6.6312E-03	5.3489E-11	2.4589E+14	2.4536E+08
I-132	5.2174E-03	5.0545E-13	2.3060E+12	1.9304E+08
I-133	1.2208E-02	1.0777E-11	4.8796E+13	4.5169E+08
I-134	2.9414E-03	1.1026E-13	4.9553E+11	1.0883E+08
I-135	9.9291E-03	2.8273E-12	1.2612E+13	3.6738E+08
Cs-134	8.9936E-04	6.9511E-10	3.1239E+15	3.3276E+07
Cs-136	2.5817E-04	3.5226E-12	1.5598E+13	9.5525E+06
Cs-137	4.8569E-04	5.5838E-09	2.4545E+16	1.7971E+07
I-130	2.9864E-04	1.5312E-13	7.0932E+11	1.1050E+07
Cs-138	2.3919E-03	5.6527E-14	2.4668E+11	8.8500E+07
Cs-134m	1.3469E-04	1.6702E-14	7.5059E+10	4.9834E+06
Rb-88	3.1777E-03	2.6472E-14	1.8116E+11	1.1757E+08
Rb-89	1.2792E-05	9.2037E-17	6.2276E+08	4.7332E+05
Ba-137m	5.3840E-04	1.0011E-15	4.4006E+09	1.9921E+07
Br-82	4.5330E-05	4.1870E-14	3.0749E+11	1.6772E+06
Br-83	4.5485E-04	2.8792E-14	2.0890E+11	1.6829E+07
Br-84	1.0384E-04	1.4751E-15	1.0575E+10	3.8419E+06

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	5.9853E+12
Organic I (atoms)	5.3171E+11
Aerosols (kg)	6.3492E-09

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Rb-86	9.5236E-06	1.1704E-13	8.1960E+11	3.5237E+05

Sr-89	6.9910E-07	2.4064E-14	1.6283E+11	2.5867E+04
I-131	7.3318E-03	5.9139E-11	2.7187E+14	2.7128E+08
I-132	5.7686E-03	5.5885E-13	2.5496E+12	2.1344E+08
I-133	1.3498E-02	1.1915E-11	5.3951E+13	4.9941E+08
I-134	3.2521E-03	1.2191E-13	5.4788E+11	1.2033E+08
I-135	1.0978E-02	3.1260E-12	1.3945E+13	4.0619E+08
Cs-134	9.9329E-04	7.6771E-10	3.4502E+15	3.6752E+07
Cs-136	2.8514E-04	3.8905E-12	1.7227E+13	1.0550E+07
Cs-137	5.3642E-04	6.1670E-09	2.7108E+16	1.9847E+07
I-130	3.3019E-04	1.6930E-13	7.8426E+11	1.2217E+07
Cs-138	2.7932E-03	6.6010E-14	2.8806E+11	1.0335E+08
Cs-134m	1.4875E-04	1.8446E-14	8.2899E+10	5.5039E+06
Rb-88	4.4928E-03	3.7428E-14	2.5613E+11	1.6623E+08
Rb-89	1.4128E-05	1.0165E-16	6.8780E+08	5.2275E+05
Ba-137m	5.9463E-04	1.1057E-15	4.8602E+09	2.2001E+07
Br-82	5.0118E-05	4.6293E-14	3.3998E+11	1.8544E+06
Br-83	5.0290E-04	3.1834E-14	2.3097E+11	1.8607E+07
Br-84	1.1481E-04	1.6310E-15	1.1693E+10	4.2478E+06

Detailed model information at time (H) = 8.0000

EAB Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.1325E-02	7.5300E+00	6.5634E-02	3.1364E-01
Accumulated dose (rem)	6.5408E-02	1.1496E+01	1.3056E-01	4.9630E-01

LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.7609E-03	4.2330E-01	3.6896E-03	1.7631E-02
Accumulated dose (rem)	5.9723E-03	9.1339E-01	1.1712E-02	4.0201E-02

Control Room Doses:

Time (h) = 8.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	6.8870E-04	6.1410E-01	4.8486E-02	2.4013E-02
Accumulated dose (rem)	1.2787E-03	1.1845E+00	8.8383E-02	4.6176E-02

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Kr-85	1.0835E+04	2.7616E-02	1.9566E+23	4.0089E+14
Kr-85m	5.8185E+04	7.0703E-06	5.0092E+19	2.1529E+15
Kr-87	4.9401E+03	1.7440E-07	1.2072E+18	1.8278E+14
Kr-88	7.7256E+04	6.1611E-06	4.2163E+19	2.8585E+15
Rb-86	1.0744E+02	1.3205E-06	9.2466E+18	3.9754E+12
Sr-89	7.9670E+00	2.7423E-07	1.8556E+18	2.9478E+11
I-131	8.0191E+04	6.4684E-04	2.9735E+21	2.9671E+15
I-132	1.0569E+04	1.0239E-06	4.6715E+18	3.9107E+14
I-133	1.2351E+05	1.0903E-04	4.9368E+20	4.5698E+15
I-134	3.1635E+02	1.1859E-08	5.3294E+16	1.1705E+13
I-135	6.5396E+04	1.8622E-05	8.3068E+19	2.4197E+15
Xe-133	1.4605E+06	7.8026E-03	3.5330E+22	5.4039E+16
Xe-135	3.7188E+05	1.4562E-04	6.4959E+20	1.3759E+16
Cs-134	1.1308E+04	8.7402E-03	3.9279E+22	4.1841E+14
Cs-136	3.2042E+03	4.3719E-05	1.9359E+20	1.1856E+14
Cs-137	6.1081E+03	7.0223E-02	3.0868E+23	2.2600E+14
I-130	2.6358E+03	1.3515E-06	6.2605E+18	9.7524E+13
Kr-83m	9.5517E+03	4.6296E-07	3.3590E+18	3.5341E+14
Xe-138	7.9198E-05	8.2365E-16	3.5943E+09	2.9303E+06
Xe-131m	8.4704E+03	1.0113E-04	4.6488E+20	3.1341E+14
Xe-133m	4.4131E+04	9.8351E-05	4.4533E+20	1.6328E+15
Xe-135m	2.5127E+04	2.7584E-07	1.2305E+18	9.2970E+14
Cs-138	1.7899E+01	4.2301E-10	1.8460E+15	6.6228E+11
Cs-134m	4.0370E+02	5.0060E-08	2.2498E+17	1.4937E+13
Rb-88	8.4357E+04	7.0275E-07	4.8091E+18	3.1212E+15
Rb-89	1.1936E-05	8.5873E-17	5.8106E+08	4.4162E+05
Ba-137m	6.7710E+03	1.2590E-08	5.5343E+16	2.5053E+14
Br-82	4.9786E+02	4.5986E-07	3.3772E+18	1.8421E+13
Br-83	9.8636E+02	6.2437E-08	4.5302E+17	3.6495E+13
Br-84	5.0159E-01	7.1258E-12	5.1087E+13	1.8559E+10

Containment Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.3265E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.2285E+16	0.0000E+00	0.0000E+00
Organic I (atoms)	1.2484E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	7.9784E-02	0.0000E+00	0.0000E+00

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	4.0377E+20	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	9.7795E-02	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Kr-85	3.6121E+00	9.2067E-06	6.5228E+19	1.3365E+11
Kr-85m	1.9398E+01	2.3571E-09	1.6700E+16	7.1771E+11
Kr-87	1.6469E+00	5.8143E-11	4.0246E+14	6.0936E+10
Kr-88	2.5755E+01	2.0540E-09	1.4056E+16	9.5295E+11
Rb-86	5.4850E-02	6.7410E-10	4.7204E+15	2.0294E+09
Sr-89	4.0671E-03	1.3999E-10	9.4726E+14	1.5048E+08
I-131	4.1178E+01	3.3215E-07	1.5269E+18	1.5236E+12
I-132	5.4274E+00	5.2580E-10	2.3988E+15	2.0081E+11
I-133	6.3422E+01	5.5987E-08	2.5350E+17	2.3466E+12
I-134	1.6245E-01	6.0894E-12	2.7367E+13	6.0105E+09
I-135	3.3581E+01	9.5622E-09	4.2655E+16	1.2425E+12
Xe-133	4.8635E+02	2.5983E-06	1.1765E+19	1.7995E+13
Xe-135	1.1989E+02	4.6945E-08	2.0942E+17	4.4358E+12
Cs-134	5.7728E+00	4.4618E-06	2.0052E+19	2.1359E+11
Cs-136	1.6357E+00	2.2319E-08	9.8828E+16	6.0523E+10
Cs-137	3.1182E+00	3.5849E-05	1.5758E+20	1.1537E+11
I-130	1.3535E+00	6.9397E-10	3.2148E+15	5.0079E+10
Kr-83m	2.9397E+00	1.4248E-10	1.0338E+15	1.0877E+11
Xe-131m	2.8222E+00	3.3693E-08	1.5489E+17	1.0442E+11
Xe-133m	1.4674E+01	3.2702E-08	1.4807E+17	5.4293E+11
Xe-135m	5.7440E+00	6.3057E-11	2.8129E+14	2.1253E+11
Cs-138	9.0840E-03	2.1468E-13	9.3683E+11	3.3611E+08
Cs-134m	2.0609E-01	2.5556E-11	1.1485E+14	7.6253E+09
Rb-88	2.9358E+01	2.4458E-10	1.6737E+15	1.0863E+12
Ba-137m	3.4566E+00	6.4272E-12	2.8252E+13	1.2789E+11
Br-82	2.5565E-01	2.3614E-10	1.7342E+15	9.4591E+09
Br-83	5.0650E-01	3.2061E-11	2.3262E+14	1.8740E+10
Br-84	2.5757E-04	3.6591E-15	2.6233E+10	9.5301E+06

Environment Transport Group Inventory:

Time (h) = 8.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	1.9387E+17	2.6927E+15	7.7538E+19
Elemental I (atoms)	1.0367E+10	1.4399E+08	1.2934E+16
Organic I (atoms)	1.0399E+13	1.4443E+11	4.1600E+15
Aerosols (kg)	6.6524E-08	9.2395E-10	4.0729E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	2.3568E-05	2.8965E-13	2.0283E+12	8.7202E+05
Sr-89	1.7476E-06	6.0153E-14	4.0702E+11	6.4661E+04
I-131	1.7702E-02	1.4279E-10	6.5639E+14	6.5497E+08
I-132	2.3331E-03	2.2603E-13	1.0312E+12	8.6326E+07

I-133	2.7264E-02	2.4068E-11	1.0898E+14	1.0088E+09
I-134	6.9832E-05	2.6177E-15	1.1764E+10	2.5838E+06
I-135	1.4436E-02	4.1106E-12	1.8337E+13	5.3413E+08
Cs-134	2.4805E-03	1.9172E-09	8.6161E+15	9.1779E+07
Cs-136	7.0286E-04	9.5900E-12	4.2465E+13	2.6006E+07
Cs-137	1.3398E-03	1.5404E-08	6.7710E+16	4.9574E+07
I-130	5.8184E-04	2.9833E-13	1.3820E+12	2.1528E+07
Cs-138	3.5204E-06	8.3195E-17	3.6305E+08	1.3025E+05
Cs-134m	8.8553E-05	1.0981E-14	4.9349E+10	3.2765E+06
Rb-88	6.7076E-04	5.5879E-15	3.8240E+10	2.4818E+07
Ba-137m	1.4852E-03	2.7617E-15	1.2140E+10	5.4954E+07
Br-82	1.0990E-04	1.0151E-13	7.4551E+11	4.0663E+06
Br-83	2.1774E-04	1.3783E-14	1.0000E+11	8.0562E+06
Br-84	1.1072E-07	1.5730E-18	1.1277E+07	4.0968E+03

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	5.9389E+12
Organic I (atoms)	1.7668E+12
Aerosols (kg)	1.7501E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Kr-85	8.8229E-05	2.2488E-10	1.5933E+15	3.2645E+06
Kr-85m	4.7380E-04	5.7574E-14	4.0790E+11	1.7531E+07
Kr-87	4.0227E-05	1.4202E-15	9.8304E+09	1.4884E+06
Kr-88	6.2910E-04	5.0170E-14	3.4333E+11	2.3277E+07
Rb-86	5.4815E-08	6.7368E-16	4.7174E+09	2.0282E+03
Sr-89	4.0646E-09	1.3991E-16	9.4667E+08	1.5039E+02
I-131	4.0909E-05	3.2998E-13	1.5169E+12	1.5136E+06
I-132	5.3919E-06	5.2236E-16	2.3831E+09	1.9950E+05
I-133	6.3007E-05	5.5620E-14	2.5184E+11	2.3313E+06
I-134	1.6138E-07	6.0495E-18	2.7187E+07	5.9711E+03
I-135	3.3361E-05	9.4996E-15	4.2376E+10	1.2344E+06
Xe-133	1.1954E-02	6.3864E-11	2.8917E+14	4.4230E+08
Xe-135	3.4571E-03	1.3538E-12	6.0389E+12	1.2791E+08
Cs-134	5.7692E-06	4.4590E-12	2.0040E+13	2.1346E+05
Cs-136	1.6347E-06	2.2305E-14	9.8766E+10	6.0485E+04
Cs-137	3.1162E-06	3.5826E-11	1.5748E+14	1.1530E+05
I-130	1.3446E-06	6.8943E-16	3.1937E+09	4.9751E+04
Kr-83m	1.1098E-04	5.3790E-15	3.9028E+10	4.1063E+06
Xe-131m	6.9173E-05	8.2584E-13	3.7964E+12	2.5594E+06
Xe-133m	3.6373E-04	8.1062E-13	3.6704E+12	1.3458E+07
Xe-135m	1.4581E-03	1.6007E-14	7.1403E+10	5.3949E+07
Cs-138	9.1322E-09	2.1582E-19	9.4180E+05	3.3789E+02
Cs-134m	2.0596E-07	2.5540E-17	1.1478E+08	7.6205E+03
Rb-88	2.6004E-04	2.1663E-15	1.4825E+10	9.6216E+06
Ba-137m	3.4544E-06	6.4232E-18	2.8235E+07	1.2781E+05
Br-82	2.5398E-07	2.3459E-16	1.7229E+09	9.3972E+03
Br-83	5.0318E-07	3.1852E-17	2.3110E+08	1.8618E+04

Control Room Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.8968E+15	0.0000E+00	0.0000E+00
Elemental I (atoms)	8.4696E+06	0.0000E+00	0.0000E+00
Organic I (atoms)	6.2339E+09	0.0000E+00	0.0000E+00
Aerosols (kg)	4.0706E-11	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	1.9597E-06	2.4085E-14	1.6865E+11	7.2509E+04
Sr-89	1.4531E-07	5.0018E-15	3.3844E+10	5.3766E+03
I-131	1.4824E-03	1.1957E-11	5.4968E+13	5.4849E+07
I-132	1.9538E-04	1.8928E-14	8.6356E+10	7.2292E+06
I-133	2.2832E-03	2.0155E-12	9.1259E+12	8.4477E+07
I-134	5.8479E-06	2.1921E-16	9.8518E+08	2.1637E+05
I-135	1.2089E-03	3.4423E-13	1.5356E+12	4.4729E+07
Cs-134	2.0626E-04	1.5941E-10	7.1643E+14	7.6315E+06
Cs-136	5.8443E-05	7.9741E-13	3.5310E+12	2.1624E+06
Cs-137	1.1141E-04	1.2808E-09	5.6301E+15	4.1221E+06
I-130	4.8724E-05	2.4983E-14	1.1573E+11	1.8028E+06
Cs-138	3.5760E-07	8.4511E-18	3.6879E+07	1.3231E+04
Cs-134m	7.3633E-06	9.1307E-16	4.1034E+09	2.7244E+05
Rb-88	2.7374E-04	2.2805E-15	1.5606E+10	1.0128E+07
Ba-137m	1.2350E-04	2.2964E-16	1.0094E+09	4.5695E+06
Br-82	9.2033E-06	8.5008E-15	6.2431E+10	3.4052E+05
Br-83	1.8234E-05	1.1542E-15	8.3743E+09	6.7465E+05
Br-84	9.2724E-09	1.3173E-19	9.4438E+05	3.4308E+02

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	9.6859E+11
Organic I (atoms)	0.0000E+00	1.3776E+11
Aerosols (kg)	0.0000E+00	1.4552E-09

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Rb-86	2.3568E-05	2.8965E-13	2.0283E+12	8.7202E+05
Sr-89	1.7476E-06	6.0153E-14	4.0702E+11	6.4661E+04
I-131	1.7702E-02	1.4279E-10	6.5639E+14	6.5497E+08
I-132	2.3331E-03	2.2603E-13	1.0312E+12	8.6326E+07
I-133	2.7264E-02	2.4068E-11	1.0898E+14	1.0088E+09
I-134	6.9832E-05	2.6177E-15	1.1764E+10	2.5838E+06
I-135	1.4436E-02	4.1106E-12	1.8337E+13	5.3413E+08
Cs-134	2.4805E-03	1.9172E-09	8.6161E+15	9.1779E+07
Cs-136	7.0286E-04	9.5900E-12	4.2465E+13	2.6006E+07
Cs-137	1.3398E-03	1.5404E-08	6.7710E+16	4.9574E+07
I-130	5.8184E-04	2.9833E-13	1.3820E+12	2.1528E+07
Cs-138	3.5204E-06	8.3195E-17	3.6305E+08	1.3025E+05
Cs-134m	8.8553E-05	1.0981E-14	4.9349E+10	3.2765E+06
Rb-88	6.7076E-04	5.5879E-15	3.8240E+10	2.4818E+07
Ba-137m	1.4852E-03	2.7617E-15	1.2140E+10	5.4954E+07
Br-82	1.0990E-04	1.0151E-13	7.4551E+11	4.0663E+06
Br-83	2.1774E-04	1.3783E-14	1.0000E+11	8.0562E+06
Br-84	1.1072E-07	1.5730E-18	1.1277E+07	4.0968E+03

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 8.0000	Pathway Filter

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Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    5.9389E+12
Organic I (atoms)      1.7668E+12
Aerosols (kg)          1.7501E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Exhaust Transport Group Inventory:

                        Pathway
Time (h) =   8.0000      Filter
Noble gases (atoms)    0.0000E+00
Elemental I (atoms)    0.0000E+00
Organic I (atoms)      0.0000E+00
Aerosols (kg)          0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) =   8.0000       Ci           kg          Atoms         Bq
Rb-86                  2.5528E-05  3.1373E-13  2.1969E+12  9.4453E+05
Sr-89                  1.8929E-06  6.5155E-14  4.4087E+11  7.0037E+04
I-131                  1.9184E-02  1.5474E-10  7.1136E+14  7.0982E+08
I-132                  2.5285E-03  2.4496E-13  1.1176E+12  9.3555E+07
I-133                  2.9547E-02  2.6083E-11  1.1810E+14  1.0932E+09
I-134                  7.5680E-05  2.8369E-15  1.2750E+10  2.8002E+06
I-135                  1.5645E-02  4.4549E-12  1.9872E+13  5.7886E+08
Cs-134                 2.6868E-03  2.0766E-09  9.3325E+15  9.9410E+07
Cs-136                 7.6130E-04  1.0387E-11  4.5996E+13  2.8168E+07
Cs-137                 1.4512E-03  1.6684E-08  7.3340E+16  5.3696E+07
I-130                  6.3056E-04  3.2331E-13  1.4977E+12  2.3331E+07
Cs-138                 3.8780E-06  9.1646E-17  3.9993E+08  1.4348E+05
Cs-134m                9.5917E-05  1.1894E-14  5.3453E+10  3.5489E+06
Rb-88                  9.4450E-04  7.8683E-15  5.3846E+10  3.4947E+07
Ba-137m                1.6087E-03  2.9913E-15  1.3149E+10  5.9523E+07
Br-82                  1.1910E-04  1.1001E-13  8.0794E+11  4.4068E+06
Br-83                  2.3597E-04  1.4937E-14  1.0838E+11  8.7308E+06
Br-84                  1.2000E-07  1.7047E-18  1.2222E+07  4.4399E+03

Detailed model information at time (H) =   24.0000

EAB Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        1.7501E-02  3.4060E+00  4.0604E-02  1.4623E-01
Accumulated dose (rem)  8.2909E-02  1.4902E+01  1.7117E-01  6.4253E-01

LPZ Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        6.6239E-04  1.2891E-01  1.5368E-03  5.5347E-03
Accumulated dose (rem)  6.6347E-03  1.0423E+00  1.3249E-02  4.5735E-02

Control Room Doses:

Time (h) =  24.0000     Whole Body    Thyroid      Skin       TEDE
Delta dose (rem)        2.8560E-04  2.0855E-01  2.1257E-02  8.2072E-03
Accumulated dose (rem)  1.5643E-03  1.3931E+00  1.0964E-01  5.4384E-02

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) =  24.0000       Ci           kg          Atoms         Bq
Kr-85                  1.0827E+04  2.7596E-02  1.9551E+23  4.0060E+14
Kr-85m                 4.8912E+03  5.9435E-07  4.2109E+18  1.8097E+14
Kr-87                  8.0522E-01  2.8427E-11  1.9677E+14  2.9793E+10
Kr-88                  1.5549E+03  1.2400E-07  8.4859E+17  5.7531E+13
Rb-86                  2.1148E+01  2.5991E-07  1.8200E+18  7.8247E+11
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Sr-89	1.5928E+00	5.4825E-08	3.7097E+17	5.8934E+10
I-131	1.5487E+04	1.2492E-04	5.7428E+20	5.7303E+14
I-132	1.7407E+01	1.6864E-09	7.6938E+15	6.4408E+11
I-133	1.4823E+04	1.3085E-05	5.9250E+19	5.4846E+14
I-134	2.0744E-04	7.7760E-15	3.4946E+10	7.6752E+06
I-135	2.4986E+03	7.1147E-07	3.1738E+18	9.2448E+13
Xe-133	1.3581E+06	7.2554E-03	3.2852E+22	5.0249E+16
Xe-135	1.5413E+05	6.0354E-05	2.6923E+20	5.7028E+15
Cs-134	2.2802E+03	1.7624E-03	7.9203E+21	8.4367E+13
Cs-136	6.2409E+02	8.5152E-06	3.7706E+19	2.3091E+13
Cs-137	1.2323E+03	1.4168E-02	6.2277E+22	4.5596E+13
I-130	2.1980E+02	1.1270E-07	5.2207E+17	8.1327E+12
Kr-83m	9.4476E+01	4.5791E-09	3.3224E+16	3.4956E+12
Xe-131m	8.2193E+03	9.8128E-05	4.5110E+20	3.0411E+14
Xe-133m	3.6927E+04	8.2297E-05	3.7264E+20	1.3663E+15
Xe-135m	4.6926E+03	5.1515E-08	2.2980E+17	1.7363E+14
Cs-138	3.8271E-09	9.0445E-20	3.9469E+05	1.4160E+02
Cs-134m	1.7785E+00	2.2053E-10	9.9111E+14	6.5803E+10
Rb-88	1.6978E+03	1.4144E-08	9.6791E+16	6.2818E+13
Ba-137m	1.3661E+03	2.5401E-09	1.1166E+16	5.0545E+13
Br-82	7.4383E+01	6.8705E-08	5.0457E+17	2.7522E+12
Br-83	1.9480E+00	1.2331E-10	8.9466E+14	7.2075E+10

Containment Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.2947E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	9.9428E+06	0.0000E+00	0.0000E+00
Organic I (atoms)	1.0910E+19	0.0000E+00	0.0000E+00
Aerosols (kg)	1.6075E-02	0.0000E+00	0.0000E+00

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	3.5311E+20	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.6124E-01	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	1.0832E+01	2.7610E-05	1.9561E+20	4.0079E+11
Kr-85m	4.8936E+00	5.9464E-10	4.2130E+15	1.8106E+11
Kr-87	8.0562E-04	2.8441E-14	1.9687E+11	2.9808E+07
Kr-88	1.5557E+00	1.2406E-10	8.4901E+14	5.7559E+10
Rb-86	8.8349E-02	1.0858E-09	7.6033E+15	3.2689E+09
Sr-89	6.6542E-03	2.2904E-10	1.5498E+15	2.4621E+08
I-131	6.4134E+01	5.1731E-07	2.3781E+18	2.3729E+12
I-132	7.2085E-02	6.9836E-12	3.1861E+13	2.6672E+09
I-133	6.1384E+01	5.4188E-08	2.4536E+17	2.2712E+12
I-135	1.0347E+01	2.9463E-09	1.3143E+16	3.8283E+11
Xe-133	1.3521E+03	7.2233E-06	3.2706E+19	5.0026E+13
Xe-135	1.3809E+02	5.4074E-08	2.4122E+17	5.1094E+12
Cs-134	9.5259E+00	7.3626E-06	3.3088E+19	3.5246E+11
Cs-136	2.6072E+00	3.5574E-08	1.5752E+17	9.6468E+10
Cs-137	5.1483E+00	5.9188E-05	2.6018E+20	1.9049E+11
I-130	9.1022E-01	4.6670E-10	2.1619E+15	3.3678E+10
Kr-83m	6.3706E-02	3.0877E-12	2.2403E+13	2.3571E+09
Xe-131m	8.1943E+00	9.7829E-08	4.4973E+17	3.0319E+11
Xe-133m	3.6495E+01	8.1333E-08	3.6827E+17	1.3503E+12
Xe-135m	1.7693E+00	1.9423E-11	8.6643E+13	6.5463E+10
Cs-134m	7.4299E-03	9.2133E-13	4.1406E+12	2.7491E+08
Rb-88	1.7765E+00	1.4799E-11	1.0128E+14	6.5729E+10
Ba-137m	5.7070E+00	1.0612E-11	4.6647E+13	2.1116E+11
Br-82	3.0802E-01	2.8451E-10	2.0895E+15	1.1397E+10
Br-83	8.0667E-03	5.1062E-13	3.7048E+12	2.9847E+08

Environment Transport Group Inventory:

Time (h) = 24.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	1.9122E+17	2.6558E+15	2.2938E+20

Elemental I (atoms)	8.3929E+00	1.1657E-01	1.1311E+16
Organic I (atoms)	9.0900E+12	1.2625E+11	1.0912E+16
Aerosols (kg)	1.3407E-08	1.8621E-10	6.7158E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	2.8676E-05	3.5243E-13	2.4679E+12	1.0610E+06
Sr-89	2.1598E-06	7.4343E-14	5.0304E+11	7.9914E+04
I-131	2.0834E-02	1.6805E-10	7.7253E+14	7.7086E+08
I-132	2.3417E-05	2.2686E-15	1.0350E+10	8.6643E+05
I-133	1.9941E-02	1.7603E-11	7.9705E+13	7.3781E+08
I-135	3.3612E-03	9.5710E-13	4.2695E+12	1.2436E+08
Cs-134	3.0919E-03	2.3898E-09	1.0740E+16	1.1440E+08
Cs-136	8.4626E-04	1.1547E-11	5.1129E+13	3.1312E+07
Cs-137	1.6710E-03	1.9211E-08	8.4448E+16	6.1829E+07
I-130	2.9569E-04	1.5161E-13	7.0231E+11	1.0940E+07
Cs-134m	2.4116E-06	2.9905E-16	1.3439E+09	8.9229E+04
Rb-88	5.3956E-06	4.4949E-17	3.0760E+08	1.9964E+05
Ba-137m	1.8524E-03	3.4444E-15	1.5141E+10	6.8539E+07
Br-82	1.0006E-04	9.2424E-14	6.7877E+11	3.7023E+06
Br-83	2.6205E-06	1.6588E-16	1.2035E+09	9.6957E+04

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	5.1936E+12
Organic I (atoms)	2.7320E+12
Aerosols (kg)	2.1798E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	3.4963E-05	8.9114E-11	6.3136E+14	1.2936E+06
Kr-85m	1.5795E-05	1.9193E-15	1.3598E+10	5.8441E+05
Kr-87	2.6002E-09	9.1798E-20	6.3542E+05	9.6209E+01
Kr-88	5.0211E-06	4.0043E-16	2.7403E+09	1.8578E+05
Rb-86	4.0361E-09	4.9603E-17	3.4734E+08	1.4933E+02
Sr-89	3.0399E-10	1.0463E-17	7.0800E+07	1.1247E+01
I-131	2.9547E-06	2.3833E-14	1.0956E+11	1.0932E+05
I-132	3.3210E-09	3.2174E-19	1.4678E+06	1.2288E+02
I-133	2.8280E-06	2.4965E-15	1.1304E+10	1.0464E+05
I-135	4.7668E-07	1.3574E-16	6.0550E+08	1.7637E+04
Xe-133	4.4344E-03	2.3690E-11	1.0727E+14	1.6407E+08

Xe-135	6.0677E-04	2.3760E-13	1.0599E+12	2.2450E+07
Cs-134	4.3518E-07	3.3635E-13	1.5116E+12	1.6102E+04
Cs-136	1.1911E-07	1.6251E-15	7.1961E+09	4.4070E+03
Cs-137	2.3519E-07	2.7039E-12	1.1886E+13	8.7021E+03
I-130	4.1934E-08	2.1501E-17	9.9602E+07	1.5516E+03
Kr-83m	7.3991E-07	3.5862E-17	2.6020E+08	2.7377E+04
Xe-131m	2.6796E-05	3.1991E-13	1.4706E+12	9.9146E+05
Xe-133m	1.2273E-04	2.7352E-13	1.2385E+12	4.5411E+06
Xe-135m	3.2732E-04	3.5933E-15	1.6029E+10	1.2111E+07
Cs-134m	3.3942E-10	4.2089E-20	1.8915E+05	1.2559E+01
Rb-88	2.0626E-06	1.7183E-17	1.1759E+08	7.6317E+04
Ba-137m	2.6072E-07	4.8478E-19	2.1310E+06	9.6465E+03
Br-82	1.4191E-08	1.3108E-17	9.6263E+07	5.2506E+02
Br-83	3.7164E-10	2.3525E-20	1.7068E+05	1.3751E+01

Control Room Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	7.4243E+14	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.5644E-03	0.0000E+00	0.0000E+00
Organic I (atoms)	2.0380E+09	0.0000E+00	0.0000E+00
Aerosols (kg)	3.0680E-12	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	2.3015E-06	2.8285E-14	1.9806E+11	8.5154E+04
Sr-89	1.7334E-07	5.9665E-15	4.0372E+10	6.4136E+03
I-131	1.6820E-03	1.3567E-11	6.2369E+13	6.2234E+07
I-132	1.8905E-06	1.8315E-16	8.3559E+08	6.9950E+04
I-133	1.6099E-03	1.4211E-12	6.4348E+12	5.9566E+07
I-135	2.7136E-04	7.7270E-14	3.4469E+11	1.0040E+07
Cs-134	2.4815E-04	1.9179E-10	8.6194E+14	9.1815E+06
Cs-136	6.7918E-05	9.2669E-13	4.1034E+12	2.5130E+06
Cs-137	1.3411E-04	1.5418E-09	6.7775E+15	4.9621E+06
I-130	2.3872E-05	1.2240E-14	5.6700E+10	8.8326E+05
Cs-134m	1.9355E-07	2.4000E-17	1.0786E+08	7.1612E+03
Rb-88	2.1704E-06	1.8081E-17	1.2373E+08	8.0306E+04
Ba-137m	1.4867E-04	2.7643E-16	1.2151E+09	5.5007E+06
Br-82	8.0783E-06	7.4617E-15	5.4799E+10	2.9890E+05
Br-83	2.1156E-07	1.3392E-17	9.7165E+07	7.8277E+03

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	8.4704E+11
Organic I (atoms)	0.0000E+00	1.9841E+11
Aerosols (kg)	0.0000E+00	1.7495E-09

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 24.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	2.8676E-05	3.5243E-13	2.4679E+12	1.0610E+06
Sr-89	2.1598E-06	7.4343E-14	5.0304E+11	7.9914E+04
I-131	2.0834E-02	1.6805E-10	7.7253E+14	7.7086E+08
I-132	2.3417E-05	2.2686E-15	1.0350E+10	8.6643E+05
I-133	1.9941E-02	1.7603E-11	7.9705E+13	7.3781E+08
I-135	3.3612E-03	9.5710E-13	4.2695E+12	1.2436E+08
Cs-134	3.0919E-03	2.3898E-09	1.0740E+16	1.1440E+08
Cs-136	8.4626E-04	1.1547E-11	5.1129E+13	3.1312E+07
Cs-137	1.6710E-03	1.9211E-08	8.4448E+16	6.1829E+07
I-130	2.9569E-04	1.5161E-13	7.0231E+11	1.0940E+07
Cs-134m	2.4116E-06	2.9905E-16	1.3439E+09	8.9229E+04

Rb-88	5.3956E-06	4.4949E-17	3.0760E+08	1.9964E+05
Ba-137m	1.8524E-03	3.4444E-15	1.5141E+10	6.8539E+07
Br-82	1.0006E-04	9.2424E-14	6.7877E+11	3.7023E+06
Br-83	2.6205E-06	1.6588E-16	1.2035E+09	9.6957E+04

Control Room Filtered Makeup Transport Group Inventory:

	Pathway Filter
Time (h) = 24.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	5.1936E+12
Organic I (atoms)	2.7320E+12
Aerosols (kg)	2.1798E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway Filter
Time (h) = 24.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway Filter
Time (h) = 24.0000	
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Rb-86	3.0978E-05	3.8072E-13	2.6660E+12	1.1462E+06
Sr-89	2.3332E-06	8.0310E-14	5.4341E+11	8.6327E+04
I-131	2.2516E-02	1.8162E-10	8.3490E+14	8.3309E+08
I-132	2.5308E-05	2.4518E-15	1.1186E+10	9.3638E+05
I-133	2.1551E-02	1.9024E-11	8.6140E+13	7.9738E+08
I-135	3.6325E-03	1.0344E-12	4.6141E+12	1.3440E+08
Cs-134	3.3401E-03	2.5816E-09	1.1602E+16	1.2358E+08
Cs-136	9.1418E-04	1.2473E-11	5.5232E+13	3.3825E+07
Cs-137	1.8052E-03	2.0753E-08	9.1226E+16	6.6791E+07
I-130	3.1956E-04	1.6385E-13	7.5901E+11	1.1824E+07
Cs-134m	2.6052E-06	3.2305E-16	1.4518E+09	9.6391E+04
Rb-88	7.5660E-06	6.3030E-17	4.3134E+08	2.7994E+05
Ba-137m	2.0011E-03	3.7208E-15	1.6356E+10	7.4039E+07
Br-82	1.0814E-04	9.9886E-14	7.3357E+11	4.0012E+06
Br-83	2.8320E-06	1.7927E-16	1.3007E+09	1.0478E+05

Detailed model information at time (H) = 96.0000

EAB Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	7.0791E-03	5.1523E-01	2.2088E-02	2.6642E-02
Accumulated dose (rem)	8.9988E-02	1.5418E+01	1.9326E-01	6.6917E-01

LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.1387E-04	8.2877E-03	3.5530E-04	4.2854E-04
Accumulated dose (rem)	6.7486E-03	1.0506E+00	1.3605E-02	4.6164E-02

Control Room Doses:

Time (h) = 96.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	6.1898E-05	1.1332E-02	5.8253E-03	4.9260E-04
Accumulated dose (rem)	1.6262E-03	1.4044E+00	1.1546E-01	5.4876E-02

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	1.0805E+04	2.7540E-02	1.9512E+23	3.9979E+14
Kr-85m	7.0922E-02	8.6180E-12	6.1057E+13	2.6241E+09
Kr-88	3.6249E-05	2.8909E-15	1.9783E+10	1.3412E+06
Rb-86	1.4103E-02	1.7332E-10	1.2137E+15	5.2179E+08
Sr-89	1.1395E-03	3.9222E-11	2.6539E+14	4.2161E+07
I-131	2.1302E+02	1.7182E-06	7.8988E+18	7.8817E+12
I-133	2.3971E+01	2.1161E-08	9.5814E+16	8.8693E+11
I-135	2.3414E-02	6.6670E-12	2.9740E+13	8.6630E+08
Xe-133	9.3894E+05	5.0162E-03	2.2713E+22	3.4741E+16
Xe-135	9.1041E+02	3.5650E-07	1.5903E+18	3.3685E+13
Cs-134	1.6951E+00	1.3102E-06	5.8880E+18	6.2720E+10
Cs-136	3.9695E-01	5.4161E-09	2.3983E+16	1.4687E+10
Cs-137	9.1849E-01	1.0560E-05	4.6417E+19	3.3984E+10
I-130	6.9061E-02	3.5410E-11	1.6403E+14	2.5552E+09
Kr-83m	8.1283E-08	3.9396E-18	2.8584E+07	3.0075E+03
Xe-131m	7.1671E+03	8.5566E-05	3.9335E+20	2.6518E+14
Xe-133m	1.5206E+04	3.3887E-05	1.5344E+20	5.6260E+14
Xe-135m	2.4684E+00	2.7098E-11	1.2088E+14	9.1330E+10
Rb-88	3.9581E-05	3.2974E-16	2.2565E+09	1.4645E+06
Ba-137m	1.0182E+00	1.8932E-12	8.3220E+12	3.7672E+10
Br-82	3.2229E-01	2.9769E-10	2.1862E+15	1.1925E+10

Containment Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	2.1838E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.5646E-34	0.0000E+00	0.0000E+00
Organic I (atoms)	7.6681E+18	0.0000E+00	0.0000E+00
Aerosols (kg)	1.1947E-05	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.4856E+20	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7675E-01	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	2.7046E+01	6.8937E-05	4.8841E+20	1.0007E+12
Kr-85m	1.7753E-04	2.1572E-14	1.5283E+11	6.5685E+06
Rb-86	8.2969E-02	1.0197E-09	7.1403E+15	3.0699E+09
Sr-89	6.7039E-03	2.3075E-10	1.5614E+15	2.4804E+08
I-131	5.2270E+01	4.2162E-07	1.9382E+18	1.9340E+12
I-133	5.8820E+00	5.1924E-09	2.3511E+16	2.1763E+11
I-135	5.7452E-03	1.6359E-12	7.2977E+12	2.1257E+08
Xe-133	2.3239E+03	1.2415E-05	5.6214E+19	8.5983E+13
Xe-135	1.9004E+00	7.4416E-10	3.3196E+15	7.0314E+10
Cs-134	9.9729E+00	7.7081E-06	3.4641E+19	3.6900E+11
Cs-136	2.3354E+00	3.1864E-08	1.4110E+17	8.6409E+10
Cs-137	5.4038E+00	6.2125E-05	2.7308E+20	1.9994E+11
I-130	1.6946E-02	8.6888E-12	4.0250E+13	6.2700E+08
Xe-131m	1.7540E+01	2.0940E-07	9.6263E+17	6.4897E+11
Xe-133m	3.6746E+01	8.1893E-08	3.7081E+17	1.3596E+12
Xe-135m	9.6478E-04	1.0591E-14	4.7246E+10	3.5697E+07
Ba-137m	5.9902E+00	1.1138E-11	4.8961E+13	2.2164E+11
Br-82	7.9082E-02	7.3046E-11	5.3645E+14	2.9260E+09

Environment Transport Group Inventory:

Time (h) = 96.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	9.0992E+16	1.2638E+15	5.4596E+20
Elemental I (atoms)	6.6040E-41	9.1723E-43	7.9620E+15
Organic I (atoms)	3.1946E+12	4.4370E+10	1.9191E+16
Aerosols (kg)	4.9822E-12	6.9198E-14	7.0287E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Pathway

Time (h) = 96.0000	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.6113E-05	3.2092E-13	2.2473E+12	9.6617E+05
Sr-89	2.1099E-06	7.2624E-14	4.9141E+11	7.8066E+04
I-131	1.6408E-02	1.3235E-10	6.0841E+14	6.0709E+08
I-133	1.8464E-03	1.6299E-12	7.3801E+12	6.8316E+07
I-135	1.8034E-06	5.1353E-16	2.2908E+09	6.6727E+04
Cs-134	3.1387E-03	2.4259E-09	1.0902E+16	1.1613E+08
Cs-136	7.3500E-04	1.0029E-11	4.4407E+13	2.7195E+07
Cs-137	1.7007E-03	1.9552E-08	8.5947E+16	6.2926E+07
I-130	5.3194E-06	2.7274E-15	1.2635E+10	1.9682E+05
Ba-137m	1.8853E-03	3.5055E-15	1.5409E+10	6.9755E+07
Br-82	2.4824E-05	2.2929E-14	1.6839E+11	9.1849E+05

Control Room Filtered Makeup Transport Group Inventory:

	Pathway
Time (h) = 96.0000	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.6559E+12
Organic I (atoms)	3.2687E+12
Aerosols (kg)	2.2121E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

	Pathway
Time (h) = 96.0000	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

	Pathway
Time (h) = 96.0000	Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	1.2622E-05	3.2173E-11	2.2794E+14	4.6703E+05
I-131	1.5473E-08	1.2480E-16	5.7373E+08	5.7249E+02
I-133	1.7411E-09	1.5370E-18	6.9595E+06	6.4422E+01
Xe-133	1.1015E-03	5.8846E-12	2.6645E+13	4.0755E+07
Xe-135	1.1232E-06	4.3981E-16	1.9619E+09	4.1557E+04
Cs-134	1.2568E-10	9.7139E-17	4.3656E+08	4.6502E+00
Cs-136	2.9431E-11	4.0156E-19	1.7781E+06	1.0889E+00
Cs-137	6.8100E-11	7.8292E-16	3.4415E+09	2.5197E+00
Xe-131m	8.5765E-06	1.0239E-13	4.7071E+11	3.1733E+05
Xe-133m	1.8092E-05	4.0320E-14	1.8257E+11	6.6940E+05
Xe-135m	1.7331E-07	1.9025E-18	8.4870E+06	6.4124E+03
Br-82	2.3409E-11	2.1622E-20	1.5880E+05	8.6614E-01

Control Room Transport Group Inventory:

			Overlying
Time (h) = 96.0000	Atmosphere	Sump	Pool
Noble gases (atoms)	2.5524E+14	0.0000E+00	0.0000E+00
Elemental I (atoms)	1.5414E-44	0.0000E+00	0.0000E+00
Organic I (atoms)	5.5648E+08	0.0000E+00	0.0000E+00
Aerosols (kg)	8.8578E-16	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.0926E-06	2.5718E-14	1.8009E+11	7.7427E+04
Sr-89	1.6908E-07	5.8199E-15	3.9380E+10	6.2560E+03
I-131	1.3222E-03	1.0665E-11	4.9028E+13	4.8922E+07
I-133	1.4879E-04	1.3134E-13	5.9472E+11	5.5052E+06
I-135	1.4533E-07	4.1382E-17	1.8460E+08	5.3772E+03
Cs-134	2.5153E-04	1.9441E-10	8.7370E+14	9.3067E+06
Cs-136	5.8902E-05	8.0367E-13	3.5587E+12	2.1794E+06
Cs-137	1.3629E-04	1.5669E-09	6.8876E+15	5.0428E+06
I-130	4.2866E-07	2.1979E-16	1.0181E+09	1.5860E+04
Ba-137m	1.5108E-04	2.8093E-16	1.2349E+09	5.5900E+06
Br-82	2.0004E-06	1.8477E-15	1.3570E+10	7.4016E+04

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	5.9625E+11
Organic I (atoms)	0.0000E+00	2.3382E+11
Aerosols (kg)	0.0000E+00	1.7728E-09

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.6113E-05	3.2092E-13	2.2473E+12	9.6617E+05
Sr-89	2.1099E-06	7.2624E-14	4.9141E+11	7.8066E+04
I-131	1.6408E-02	1.3235E-10	6.0841E+14	6.0709E+08
I-133	1.8464E-03	1.6299E-12	7.3801E+12	6.8316E+07
I-135	1.8034E-06	5.1353E-16	2.2908E+09	6.6727E+04
Cs-134	3.1387E-03	2.4259E-09	1.0902E+16	1.1613E+08
Cs-136	7.3500E-04	1.0029E-11	4.4407E+13	2.7195E+07
Cs-137	1.7007E-03	1.9552E-08	8.5947E+16	6.2926E+07
I-130	5.3194E-06	2.7274E-15	1.2635E+10	1.9682E+05
Ba-137m	1.8853E-03	3.5055E-15	1.5409E+10	6.9755E+07
Br-82	2.4824E-05	2.2929E-14	1.6839E+11	9.1849E+05

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.6559E+12
Organic I (atoms)	3.2687E+12
Aerosols (kg)	2.2121E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Rb-86	2.8205E-05	3.4664E-13	2.4274E+12	1.0436E+06
Sr-89	2.2790E-06	7.8444E-14	5.3079E+11	8.4322E+04
I-131	1.7730E-02	1.4301E-10	6.5744E+14	6.5601E+08
I-133	1.9952E-03	1.7612E-12	7.9748E+12	7.3821E+07
I-135	1.9488E-06	5.5491E-16	2.4754E+09	7.2104E+04
Cs-134	3.3903E-03	2.6203E-09	1.1776E+16	1.2544E+08
Cs-136	7.9391E-04	1.0832E-11	4.7966E+13	2.9375E+07
Cs-137	1.8370E-03	2.1119E-08	9.2835E+16	6.7969E+07
I-130	5.7481E-06	2.9472E-15	1.3653E+10	2.1268E+05
Ba-137m	2.0364E-03	3.7865E-15	1.6644E+10	7.5345E+07
Br-82	2.6825E-05	2.4777E-14	1.8196E+11	9.9251E+05

Detailed model information at time (H) = 720.0000

EAB Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	1.0945E-02	1.4175E-01	3.9033E-02	1.5264E-02
Accumulated dose (rem)	1.0093E-01	1.5559E+01	2.3229E-01	6.8444E-01

LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	5.1579E-05	6.6800E-04	1.8394E-04	7.1933E-05
Accumulated dose (rem)	6.8002E-03	1.0513E+00	1.3788E-02	4.6236E-02

Control Room Doses:

Time (h) = 720.0000	Whole Body	Thyroid	Skin	TEDE
Delta dose (rem)	3.5125E-05	1.5168E-03	4.2484E-03	8.1342E-05
Accumulated dose (rem)	1.6614E-03	1.4060E+00	1.1971E-01	5.4958E-02

Containment Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	1.0616E+04	2.7060E-02	1.9171E+23	3.9281E+14
I-131	2.1431E+01	1.7287E-07	7.9469E+17	7.9296E+11
I-133	2.1130E-08	1.8653E-17	8.4458E+07	7.8181E+02
Xe-133	3.0279E+04	1.6176E-04	7.3244E+20	1.1203E+15
Xe-131m	1.9118E+03	2.2825E-05	1.0493E+20	7.0738E+13
Xe-133m	4.0503E+00	9.0267E-09	4.0872E+16	1.4986E+11
Br-82	1.4556E-06	1.3445E-15	9.8738E+09	5.3856E+04

Containment Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.9255E+23	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	7.9469E+17	0.0000E+00	0.0000E+00
Aerosols (kg)	9.2763E-33	0.0000E+00	0.0000E+00

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	2.6097E+19	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7504E-01	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	1.6584E+02	4.2269E-04	2.9947E+21	6.1360E+12
I-131	5.8368E+00	4.7080E-08	2.1643E+17	2.1596E+11
Xe-133	4.7181E+02	2.5206E-06	1.1413E+19	1.7457E+13
Xe-131m	2.6955E+01	3.2181E-07	1.4794E+18	9.9734E+11
Xe-133m	6.2676E-02	1.3968E-10	6.3247E+14	2.3190E+09

Environment Transport Group Inventory:

Time (h) = 720.0000	Present Release	Release Rate/s	Integral Release
Noble gases (atoms)	8.0230E+16	1.1143E+15	3.0076E+21
Elemental I (atoms)	0.0000E+00	0.0000E+00	8.3595E+14
Organic I (atoms)	3.3109E+11	4.5985E+09	1.2412E+16
Aerosols (kg)	3.8686E-39	5.3731E-41	6.9604E-05

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	9.9407E-06	1.2217E-13	8.5549E+11	3.6780E+05
Sr-89	1.4767E-06	5.0828E-14	3.4392E+11	5.4636E+04
I-131	1.7682E-03	1.4262E-11	6.5565E+13	6.5423E+07
Cs-134	3.0646E-03	2.3686E-09	1.0645E+16	1.1339E+08
Cs-136	1.8571E-04	2.5338E-12	1.1220E+13	6.8712E+06
Cs-137	1.6979E-03	1.9521E-08	8.5807E+16	6.2823E+07
Ba-137m	1.8822E-03	3.4998E-15	1.5384E+10	6.9641E+07
Br-82	1.2009E-10	1.1092E-19	8.1463E+05	4.4433E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.8384E+11
Organic I (atoms)	1.2360E+12
Aerosols (kg)	2.1906E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Compartment Atmosphere Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	9.1606E-06	2.3349E-11	1.6542E+14	3.3894E+05
I-131	1.1949E-09	9.6382E-18	4.4307E+07	4.4211E+01
Xe-133	2.6127E-05	1.3958E-13	6.3200E+11	9.6669E+05
Xe-131m	1.6717E-06	1.9958E-14	9.1747E+10	6.1852E+04
Xe-133m	3.4949E-09	7.7888E-18	3.5267E+07	1.2931E+02

Control Room Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	Overlying Pool
Noble gases (atoms)	1.6615E+14	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00	0.0000E+00
Organic I (atoms)	4.4307E+07	0.0000E+00	0.0000E+00
Aerosols (kg)	5.2829E-43	0.0000E+00	0.0000E+00

Recirculating Filter Inventory

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	7.9662E-07	9.7904E-15	6.8557E+10	2.9475E+04
Sr-89	1.1834E-07	4.0732E-15	2.7561E+10	4.3784E+03
I-131	1.4230E-04	1.1478E-12	5.2766E+12	5.2652E+06
Cs-134	2.4559E-04	1.8981E-10	8.5305E+14	9.0867E+06
Cs-136	1.4882E-05	2.0306E-13	8.9914E+11	5.5064E+05
Cs-137	1.3607E-04	1.5643E-09	6.8764E+15	5.0345E+06
Ba-137m	1.5084E-04	2.8047E-16	1.2329E+09	5.5809E+06

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	6.2601E+10
Organic I (atoms)	0.0000E+00	8.9603E+10
Aerosols (kg)	0.0000E+00	1.7555E-09

Control Room Unfiltered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Filter Pathway Nuclide Inventory for Control Room Filtered Makeup

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	9.9407E-06	1.2217E-13	8.5549E+11	3.6780E+05
Sr-89	1.4767E-06	5.0828E-14	3.4392E+11	5.4636E+04
I-131	1.7682E-03	1.4262E-11	6.5565E+13	6.5423E+07
Cs-134	3.0646E-03	2.3686E-09	1.0645E+16	1.1339E+08
Cs-136	1.8571E-04	2.5338E-12	1.1220E+13	6.8712E+06
Cs-137	1.6979E-03	1.9521E-08	8.5807E+16	6.2823E+07
Ba-137m	1.8822E-03	3.4998E-15	1.5384E+10	6.9641E+07
Br-82	1.2009E-10	1.1092E-19	8.1463E+05	4.4433E+00

Control Room Filtered Makeup Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	3.8384E+11
Organic I (atoms)	1.2360E+12
Aerosols (kg)	2.1906E-08

Control Room Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filter
Noble gases (atoms)	0.0000E+00
Elemental I (atoms)	0.0000E+00
Organic I (atoms)	0.0000E+00
Aerosols (kg)	0.0000E+00

Control Room Total Filter Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Rb-86	1.0737E-05	1.3196E-13	9.2405E+11	3.9728E+05
Sr-89	1.5950E-06	5.4901E-14	3.7148E+11	5.9015E+04
I-131	1.9105E-03	1.5410E-11	7.0842E+13	7.0688E+07
Cs-134	3.3102E-03	2.5584E-09	1.1498E+16	1.2248E+08

Cs-136	2.0059E-04	2.7369E-12	1.2119E+13	7.4218E+06
Cs-137	1.8340E-03	2.1085E-08	9.2683E+16	6.7858E+07
Ba-137m	2.0330E-03	3.7803E-15	1.6617E+10	7.5222E+07
Br-82	1.2976E-10	1.1985E-19	8.8019E+05	4.8009E+00

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Transport Group Totals in Model:
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Noble Gases (atoms)    1.9556E+23
Elemental I (atoms)    2.6098E+19
Organic I   (atoms)    8.0710E+17
Aerosols    (kg)       1.7511E-01
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37002

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#####################################################################
                              I-131 Summary
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Time (hr)	Containment I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	1.9082E+03	3.9650E-08	1.0308E-10
0.000	1.9081E+05	3.9646E-04	1.0307E-06
0.025	1.9195E+05	1.9942E-01	5.1429E-04
0.300	1.8410E+05	2.3506E+00	2.2735E-04
0.560	1.7756E+05	4.3048E+00	1.4797E-04
0.820	1.7167E+05	6.1901E+00	1.2192E-04
1.080	1.6628E+05	8.0127E+00	1.1177E-04
1.340	1.6127E+05	9.7773E+00	1.0646E-04
1.600	1.5656E+05	1.1488E+01	1.0273E-04
1.860	1.5210E+05	1.3147E+01	9.9582E-05
2.000	1.4979E+05	1.4020E+01	9.8007E-05
2.260	1.4564E+05	1.5606E+01	8.0680E-05
2.520	1.4164E+05	1.7146E+01	7.4169E-05
2.780	1.3779E+05	1.8642E+01	7.0883E-05
3.040	1.3407E+05	2.0096E+01	6.8589E-05
3.300	1.3047E+05	2.1509E+01	6.6629E-05
3.560	1.2698E+05	2.2882E+01	6.4807E-05
3.820	1.2358E+05	2.4216E+01	6.3062E-05
4.080	1.2029E+05	2.5513E+01	6.1375E-05
4.340	1.1709E+05	2.6774E+01	5.9738E-05
4.600	1.1397E+05	2.7999E+01	5.8148E-05
4.860	1.1094E+05	2.9190E+01	5.6601E-05
5.120	1.0800E+05	3.0348E+01	5.5097E-05
5.380	1.0513E+05	3.1473E+01	5.3634E-05
5.640	1.0234E+05	3.2566E+01	5.2210E-05
5.900	9.9626E+04	3.3629E+01	5.0825E-05
6.160	9.6983E+04	3.4661E+01	4.9476E-05
6.420	9.4412E+04	3.5665E+01	4.8164E-05
6.680	9.1908E+04	3.6640E+01	4.6887E-05
6.940	8.9472E+04	3.7587E+01	4.5644E-05
7.200	8.7100E+04	3.8507E+01	4.4434E-05
7.460	8.4792E+04	3.9402E+01	4.3256E-05
7.720	8.2544E+04	4.0270E+01	4.2109E-05
7.980	8.0357E+04	4.1114E+01	4.0993E-05
8.000	8.0191E+04	4.1178E+01	4.0909E-05
8.260	7.8067E+04	4.1997E+01	2.2406E-05
8.520	7.5998E+04	4.2791E+01	1.6704E-05
8.780	7.3985E+04	4.3563E+01	1.4764E-05
9.040	7.2025E+04	4.4313E+01	1.3934E-05
9.300	7.0118E+04	4.5041E+01	1.3436E-05
9.560	6.8261E+04	4.5748E+01	1.3043E-05
9.820	6.6453E+04	4.6434E+01	1.2686E-05
10.080	6.4694E+04	4.7101E+01	1.2347E-05
24.000	1.5487E+04	6.4134E+01	2.9547E-06
96.000	2.1302E+02	5.2270E+01	1.5473E-08
720.000	2.1431E+01	5.8368E+00	1.1949E-09

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#####################################################################
                         Cumulative Dose Summary
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	EAB		LPZ		Control Room	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	1.1310E-08	5.5464E-10	1.3974E-09	6.8533E-11	9.6523E-14	3.6267E-15
0.000	1.1310E-04	5.5463E-06	1.3974E-05	6.8532E-07	6.4350E-08	2.4179E-09
0.025	5.6883E-02	2.7896E-03	7.0286E-03	3.4469E-04	1.2037E-02	4.5237E-04
0.300	6.6961E-01	3.2582E-02	8.2738E-02	4.0259E-03	1.8751E-01	7.1071E-03
0.560	1.2248E+00	5.9048E-02	1.5134E-01	7.2961E-03	2.7478E-01	1.0497E-02
0.820	1.7593E+00	8.4005E-02	2.1738E-01	1.0380E-02	3.3885E-01	1.3021E-02
1.080	2.2748E+00	1.0763E-01	2.8107E-01	1.3298E-02	3.9474E-01	1.5232E-02
1.340	2.7728E+00	1.3007E-01	3.4262E-01	1.6072E-02	4.4697E-01	1.7297E-02
1.600	3.2547E+00	1.5148E-01	4.0215E-01	1.8718E-02	4.9695E-01	1.9269E-02
1.860	3.7212E+00	1.7197E-01	4.5980E-01	2.1249E-02	5.4515E-01	2.1168E-02
2.000	3.9663E+00	1.8265E-01	4.9009E-01	2.2569E-02	5.7045E-01	2.2164E-02
2.260	4.4109E+00	2.0189E-01	5.1508E-01	2.3651E-02	6.1213E-01	2.3806E-02
2.520	4.8420E+00	2.2041E-01	5.3931E-01	2.4691E-02	6.4855E-01	2.5243E-02
2.780	5.2601E+00	2.3825E-01	5.6282E-01	2.5694E-02	6.8271E-01	2.6589E-02
3.040	5.6657E+00	2.5546E-01	5.8562E-01	2.6662E-02	7.1550E-01	2.7879E-02
3.300	6.0594E+00	2.7208E-01	6.0775E-01	2.7596E-02	7.4722E-01	2.9124E-02
3.560	6.4415E+00	2.8815E-01	6.2923E-01	2.8500E-02	7.7797E-01	3.0330E-02
3.820	6.8124E+00	3.0368E-01	6.5008E-01	2.9373E-02	8.0781E-01	3.1498E-02
4.080	7.1725E+00	3.1872E-01	6.7032E-01	3.0218E-02	8.3678E-01	3.2632E-02
4.340	7.5221E+00	3.3326E-01	6.8997E-01	3.1036E-02	8.6490E-01	3.3731E-02
4.600	7.8615E+00	3.4735E-01	7.0906E-01	3.1828E-02	8.9220E-01	3.4798E-02
4.860	8.1911E+00	3.6099E-01	7.2758E-01	3.2594E-02	9.1871E-01	3.5832E-02
5.120	8.5111E+00	3.7421E-01	7.4558E-01	3.3338E-02	9.4445E-01	3.6836E-02
5.380	8.8219E+00	3.8702E-01	7.6305E-01	3.4058E-02	9.6945E-01	3.7811E-02
5.640	9.1238E+00	3.9943E-01	7.8002E-01	3.4755E-02	9.9373E-01	3.8757E-02
5.900	9.4169E+00	4.1147E-01	7.9650E-01	3.5432E-02	1.0173E+00	3.9675E-02
6.160	9.7017E+00	4.2314E-01	8.1250E-01	3.6088E-02	1.0402E+00	4.0566E-02
6.420	9.9782E+00	4.3445E-01	8.2805E-01	3.6724E-02	1.0624E+00	4.1431E-02
6.680	1.0247E+01	4.4543E-01	8.4315E-01	3.7341E-02	1.0841E+00	4.2272E-02
6.940	1.0508E+01	4.5607E-01	8.5781E-01	3.7939E-02	1.1050E+00	4.3087E-02
7.200	1.0761E+01	4.6640E-01	8.7206E-01	3.8520E-02	1.1254E+00	4.3880E-02
7.460	1.1007E+01	4.7642E-01	8.8590E-01	3.9083E-02	1.1452E+00	4.4649E-02
7.720	1.1246E+01	4.8615E-01	8.9934E-01	3.9630E-02	1.1644E+00	4.5396E-02
7.980	1.1479E+01	4.9558E-01	9.1240E-01	4.0160E-02	1.1831E+00	4.6121E-02
8.000	1.1496E+01	4.9630E-01	9.1339E-01	4.0201E-02	1.1845E+00	4.6176E-02
8.260	1.1612E+01	5.0132E-01	9.1778E-01	4.0391E-02	1.1979E+00	4.6700E-02
8.520	1.1725E+01	5.0620E-01	9.2204E-01	4.0575E-02	1.2065E+00	4.7036E-02
8.780	1.1834E+01	5.1093E-01	9.2617E-01	4.0754E-02	1.2134E+00	4.7310E-02
9.040	1.1940E+01	5.1552E-01	9.3019E-01	4.0928E-02	1.2198E+00	4.7561E-02
9.300	1.2044E+01	5.1997E-01	9.3410E-01	4.1096E-02	1.2259E+00	4.7800E-02
9.560	1.2144E+01	5.2429E-01	9.3790E-01	4.1260E-02	1.2318E+00	4.8031E-02
9.820	1.2241E+01	5.2848E-01	9.4158E-01	4.1418E-02	1.2375E+00	4.8255E-02
10.080	1.2336E+01	5.3254E-01	9.4517E-01	4.1572E-02	1.2430E+00	4.8472E-02
24.000	1.4902E+01	6.4253E-01	1.0423E+00	4.5735E-02	1.3931E+00	5.4384E-02
96.000	1.5418E+01	6.6917E-01	1.0506E+00	4.6164E-02	1.4044E+00	5.4876E-02
720.000	1.5559E+01	6.8444E-01	1.0513E+00	4.6236E-02	1.4060E+00	5.4958E-02

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#####################################################################
                        Worst Two-Hour Dose
                    (Provided for Dose Location 1)
#####################################################################
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EAB

Time (hr)	Whole Body (rem)	Thyroid (rem)	Skin (rem)	TEDE (rem)
0.0	3.4083E-02	3.9663E+00	6.4929E-02	1.8265E-01

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#####################################################################
                     30 Day Control Room Skin Dose
#####################################################################
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Control Room

Time (hr)	Skin (rem)
720.0	1.1971E-01